



CAF B96
DEPARTMENT OF THE AIR FORCE

HEADQUARTERS 27th FIGHTER WING (ACC)
CANNON AIR FORCE BASE, NEW MEXICO

Colonel W. P. Ard
Commander, 27th Support Group
110 E Sextant Avenue Suite 1098
Cannon AFB NM 88103-5217

13 DEC 1996

Mr. Benito J. Garcia
Chief, Hazardous and Radioactive Materials Bureau
New Mexico Environment Department
2044 Galisteo Street
P. O. Box 26110
Santa Fe NM 87502



Dear Mr. Garcia

Enclosed are the third quarter 1996 groundwater monitoring reports for wells N and O at Landfills 3 and 4 (SWMUs 104 and 105) and well Q, the upgradient well, and Landfill 5 (SWMU 113), for your review and files.

If you have any questions, please contact Mr. John Constantine at (505) 784-4348 or Mr. Sanford Hutsell at (505) 784-6478.

Sincerely

W. P. ARD, Colonel, USAF
Commander, 27th Support Group

Attachments:

1. Quarterly Report, Landfills 3 & 4
2. Quarterly Report, Well Q Landfill 5

cc:

NMED (B. Hoditschek)
NMED GW Bureau (J. Jacobs)
EPA Region VI (D. Neleigh)
HQ ACC CES/ESVW w/o Atch (M. Calvert)

LIBRARY COPY

**FINAL ASSESSMENT MONITORING
QUARTERLY REPORT
THIRD QUARTER 1996**

FOR

**LONG-TERM MONITORING
LANDFILL NOs. 3 AND 4**

**CANNON AIR FORCE BASE
Clovis, New Mexico**

**Contract Number DACW45-94-D-0031
Project Number 95-321**

Prepared for

*U.S. Army Corps of Engineers
Omaha District*

Prepared by

*Foothill Engineering Consultants, Inc.
350 Indiana Street, Suite 415
Golden, Colorado 80401
(303) 278-0622*

November 1996



ACEC

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**Final Assessment Monitoring
Quarterly Report
Third Quarter 1996
Monitoring Well Q, Landfill No. 5
Cannon Air Force Base
Clovis, New Mexico**

Prepared for

U.S. Army Corps of Engineers
Omaha District

and

Harza Environmental Services, Inc.
Chicago, Illinois

HLA Project No. 33364 3.4
Contract No. DACW45-94D-0044
Delivery Order No. 01

October 28, 1996



Harding Lawson Associates
Engineering and Environmental Services
707 Seventeenth Street, Suite 2400
Denver, CO 80202 - (303) 292-5365



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**FINAL ASSESSMENT MONITORING
QUARTERLY REPORT
THIRD QUARTER 1996**

FOR

**LONG-TERM MONITORING
LANDFILL NOs. 3 AND 4**

**CANNON AIR FORCE BASE
Clovis, New Mexico**

**Appendix I
Field Forms**

**Appendix II
Analytical Results/Quality Control Data**

**Appendix III
Data Assessment**

EXECUTIVE SUMMARY

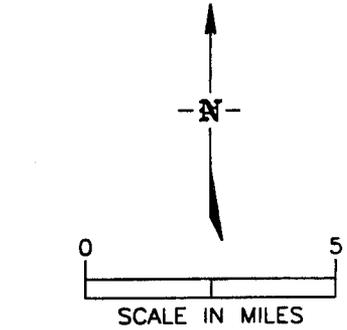
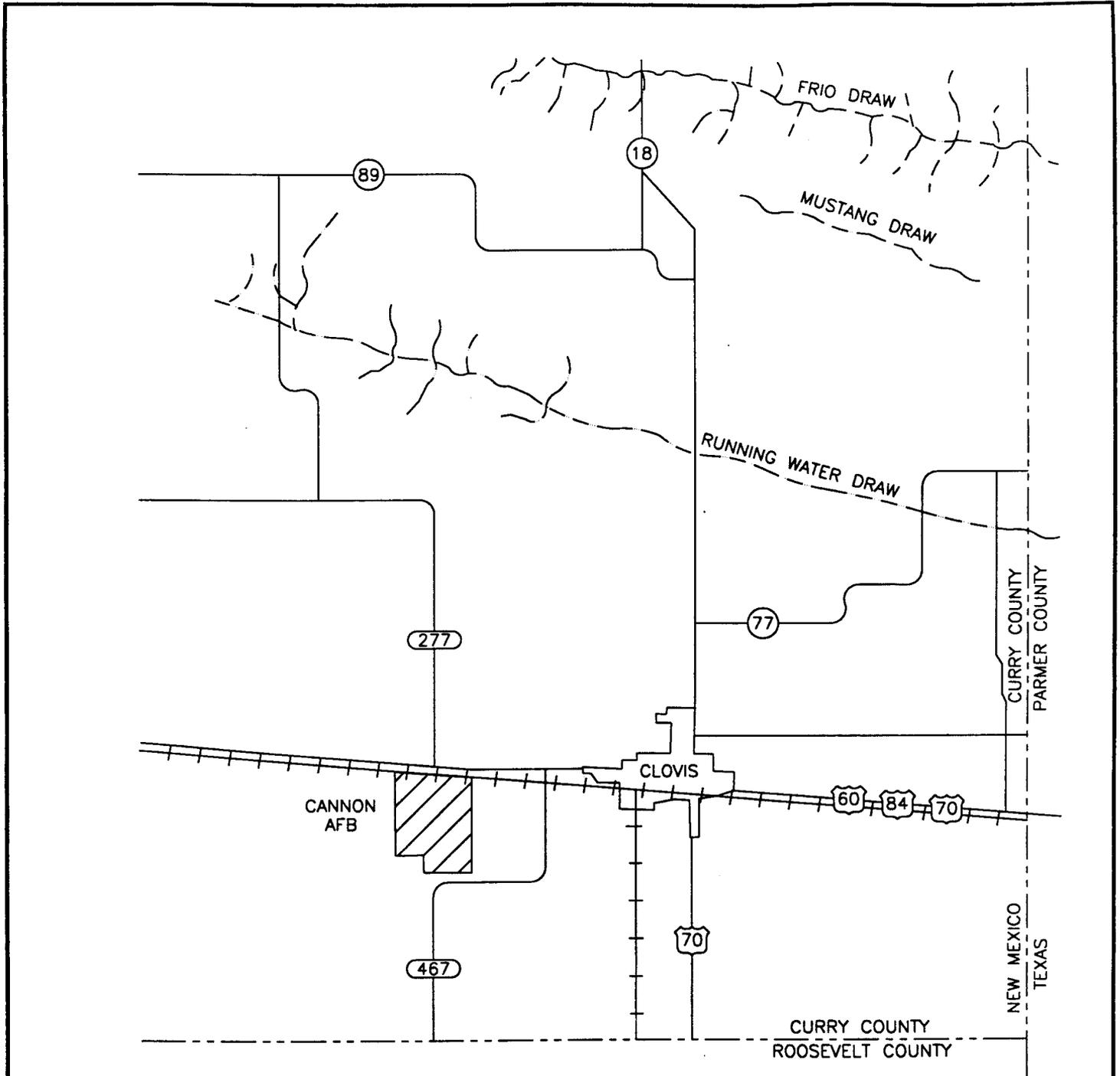
This report presents the data obtained during the third quarterly sampling event at Cannon Air Force Base monitoring wells O and N (located at Landfill numbers 3 and 4, respectively). Landfills 3 and 4 are located at the Cannon Air Force Base near Clovis, New Mexico (Figure 1). Monitoring well N is located downgradient of Landfill 4 and monitoring well O is located downgradient of Landfill 3 (Figure 2). The wells were sampled on October 2, 1996, using dedicated pumps previously installed in the wells. Analytical results were generated for three aqueous samples collected during this sampling event. Samples collected from each well were analyzed for the parameters listed below.

- Appendix - IX VOCs, SW-846 Method 8260,
- Appendix - IX SVOCs, SW-846 Method 8270,
- Dioxin - 2, 3, 7, 8-TCDD, SW-846 Method 8280,
- Appendix - IX Pesticides/PCBs, SW-846 Method 8080,
- Organophosphorous Pesticides, SW-846 Method 8140
- Herbicides, SW-846 Method 8150,
- Metals, SW-846 Method 6010 and 7000,
- Cyanide, SW-846 Method 9012,
- Sulfide, SW-846 Method 9030,
- Total Organic Carbon, SW-846 Method 9060,
- Total Organic Halides, SW-846 Method 9020

Assessment Monitoring Quarterly Reports for this work effort are presented on the appropriate New Mexico Environmental Department (NMED) data forms. Forms containing field data recorded during sampling activities are contained in Appendix I. Analytical results for samples collected during this sampling event are presented in Appendix II, along with associated QC data. An assessment of the data for sample CAFB-100296-MWO-1 is presented in Appendix III.

As part of the quality assurance and quality control (QA/QC) protocol for this sampling event, FEC collected a field duplicate sample and a field split sample. These samples provide a measure of precision and accuracy as it pertains to field and laboratory procedures. For the third quarterly sampling event, two field samples were collected - one at each well.

Various metal analytes were detected at relatively low concentrations. Barium, vanadium, and zinc were detected in samples from each well. In addition, selenium was detected in the sample collected from well N. Table 1 summarizes the compounds/analytes that were detected in samples collected during the third quarterly sampling event.



FEC
FOOTHILL ENGINEERING CONSULTANTS, INC.

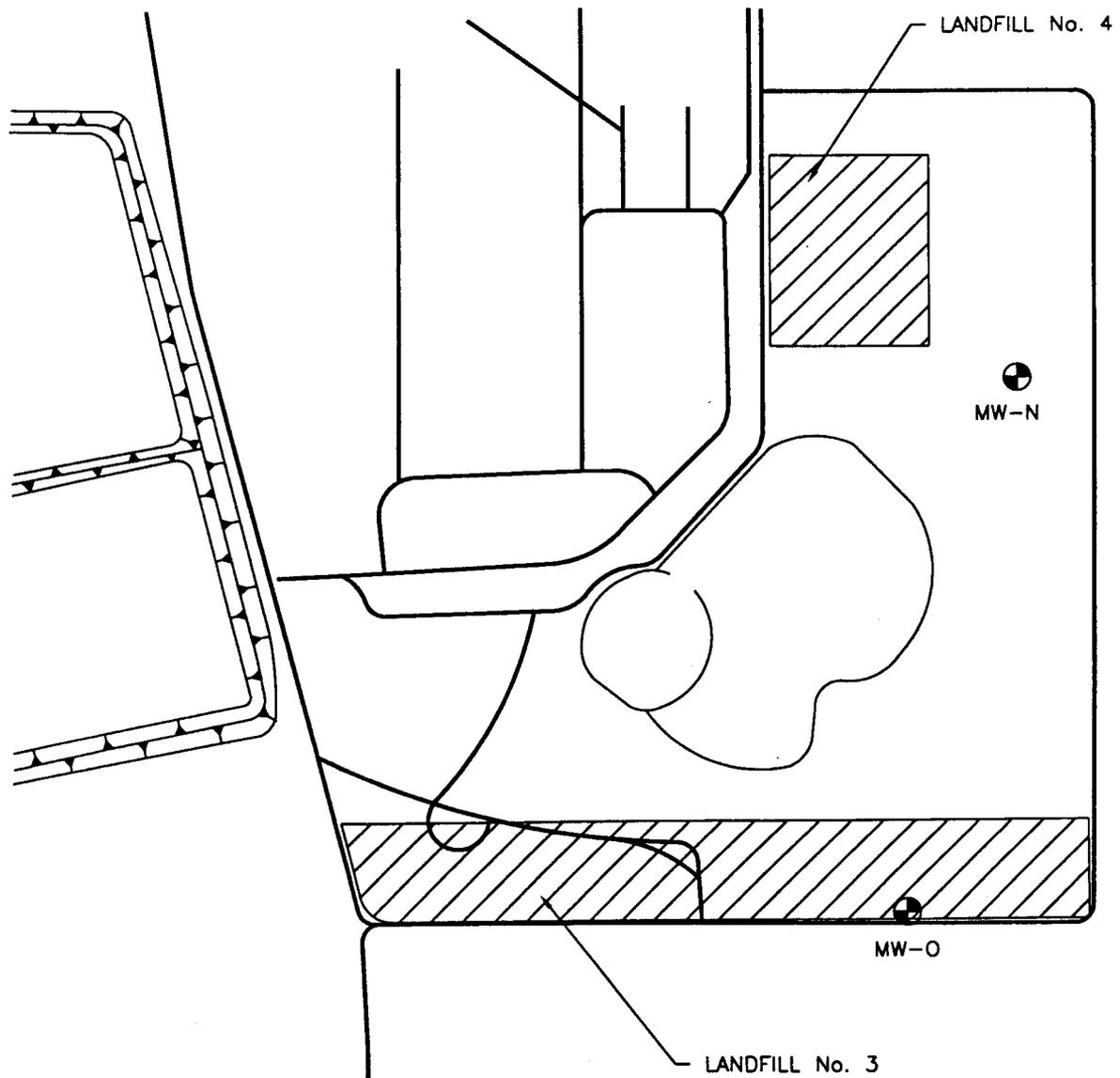
FIGURE 1
SITE LOCATION MAP
CANNON AIR FORCE BASE

DATE:
8/96

SCALE:
SHOWN

DRAWN BY:
SHN

95-321\FIGURE1.DWG 8/1/96



LEGEND

⊕ MONITORING WELL

TABLE 1 - Summary of Quarterly Groundwater Sampling for Monitoring Wells N and O

Third Quarter 1996, Groundwater Sample Summary Cannon Air Force Base, Clovis, New Mexico				
Well/sample ID:	CAFB-100296-MWN-1	CAFB-100296-MWN-2*	CAFB-100296-MWO-1	
Sample Date:	October 2, 1996	October 2, 1996	October 2, 1996	
Analyte-Method	Concentration	Concentration	Concentration	Reporting Limit
Barium-SW-846 (6010) (Ap. IX)	0.062 mg/L	0.0652 mg/L	0.0551 mg/L	0.02 mg/L
Vanadium-SW-846 (6010) (Ap. IX)	0.014 J mg/L	0.012 J mg/L	0.0092 J mg/L	0.05 mg/L
Zinc-SW-846 (6010) (Ap. IX)	0.0234 mg/L	0.0464 mg/L	0.016 J mg/L	0.025 mg/L
Selenium-SW-846 (7740) (Ap. IX)	0.0093 mg/L	0.0088 mg/L	ND	0.005 mg/L
TOC-SW-846 (9060)	1.6 mg/L	3.2 mg/L	7.7 mg/L	1 mg/L
TOX-SW-846 (9020)	0.0074 mg/L	0.0205 mg/L	0.0216 mg/L	0.005 mg/L
VOCs-SW-846 (8260) (Ap. IX)	ND	ND	ND	Varies
SVOCs-SW-846 (8270) (Ap. IX)	ND	ND	ND	5 µg/L
bis(2-ethylhexyl) phthalate-SW 846 (8270) (Ap. IX)	ND	ND	10 U µg/L	20 µg/L
Pesticides/PCBs SW-846 (8080)	ND	ND	ND	Varies
Sulfide-SW-846 (9030)	ND	ND	ND	0.48 mg/L
Herbicides- SW-846 (8150)	ND	ND	ND	Varies
Dioxin-2, 3, 7, 8-TCDD-SW-846 (8280)	ND	ND	ND	Varies
Cyanide-SW-846 (9012)	ND	ND	ND	0.02 mg/L
Organophosphorous Pesticides-SW-846 (8140)	ND	ND	ND	Varies

ND = not detected above reporting limit

J = Value is an estimated concentration above the method detection limit but below the reporting limit.

U = Value is qualified as non-detected due to the presence of this compound in the associated method blank.

* - Sample CAFB-100296-MWN-2 is a field duplicate of CAFB-100296-MWN-1

ASSESSMENT MONITORING QUARTERLY REPORT

NEW MEXICO ENVIRONMENT DEPARTMENT
 HAZARDOUS & RADIOACTIVE MATERIALS BUREAU
 525 CAMINO DE LOS MARQUEZ, SUITE 4
 SANTA FE, NM 87502

This set of data sheets is for use by all facilities in assessment monitoring (20 NMAC 4.1, Subpart VI, Section 265.93(D) (4), (5) and (7) (e) and (f), and Section 265.94 (b)).

FACILITY NAME Cannon Air Force Base EPA I.D.# NM 7572124454
 WELL NUMBER MW-O SAMPLE COLLECTION BY Ian Broussard
 LABORATORY NAME HydroLogic Laboratories. Inc. DATE SAMPLED 10/02/96
 TIME SAMPLED 1400 DATE RECEIVED BY LAB 10/03/96

PARAMETERS	STORET CODE	UNITS	VALUE	DATE ANALYZED
Elevation of G. Water	71993	ft.	3987.60	10/02/96
Well Depth	N/A	ft.	303.9	10/02/96
Well Casing Volume	N/A	gal.	12.00	10/02/96
Pump Rate	N/A	gal/min	1	10/02/96
Pump Period	72004	min.	40	10/02/96
Volume Evacuated	73675	gal.	36	10/02/96
Sampler Material	N/A	N/A	TEFLN	10/02/96
Well Sampling Method:			PSPMP	

Assessment Monitoring Quarterly Report cont.

Well Number: MW-O Facility Name Cannon Air Force Base

INDICATOR PARAMETERS

PARAMETERS	STORET CODE	UNITS	VALUE	DETECTION LIMIT	DATE ANALYZED	METHOD USED
pH	00400	S.U.	7.36 (f)	N/A	10/02/96	
	00400	S.U.	7.34 (f)	N/A	10/02/96	Field Probe
	00400	S.U.	7.33 (f)	N/A	10/02/96	
Specific Conductivity	00400	S.U.	7.33 (f)	N/A	10/02/96	
	00095	umhos/cm	1.95 (f)	N/A	10/02/96	
	00095	umhos/cm	1.98 (f)	N/A	10/02/96	Field Probe
	00095	umhos/cm	1.97 (f)	N/A	10/02/96	
	00095	umhos/cm	1.97 (f)	N/A	10/02/96	
T.O.X.	70354	mg/L	0.0216	0.001	10/09/96	
	70354	mg/L	N/A	N/A	N/A	SW846-9020
	70354	mg/L	N/A	N/A	N/A	
	70354	mg/L	N/A	N/A	N/A	
T.O.C.	00680	mg/L	7.7	0.150	10/08/96	
	00680	mg/L	N/A	N/A	N/A	SW846-9060
	00680	mg/L	N/A	N/A	N/A	
	00680	mg/L	N/A	N/A	N/A	

Assessment Monitoring Quarterly Report cont.

Well Number: MW-O Facility Name Cannon Air Force Base

INDICATOR PARAMETERS

PARAMETERS	STORET CODE	UNITS	VALUE	DETECTION LIMIT	DATE ANALYZED	METHOD USED
Chloride	00940	mg/L	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	
Iron	01045	mg/L	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
Manganese	71883	mg/L	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	
Phenols	32730	mg/L	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	
Sodium	00929	mg/L	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	
Sulfate	00945	mg/L	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
Turbidity		TU	<u>10 *(f)</u>	<u>N/A</u>	<u>10/02/96</u>	<u>Horiba-U10</u>

*Turbidity measurement not used in determining stabilization of field parameters

DATE OF THIS REPORT: 11/04/96

SIGNATURE: *Ian Broussard*

NAME (PRINTED): Ian Broussard

ASSESSMENT MONITORING QUARTERLY REPORT

NEW MEXICO ENVIRONMENT DEPARTMENT
 HAZARDOUS & RADIOACTIVE MATERIALS BUREAU
 525 CAMINO DE LOS MARQUEZ, SUITE 4
 SANTA FE, NM 87502

This set of data sheets is for use by all facilities in assessment monitoring (20 NMAC 4.1, Subpart VI, Section 265.93(D) (4), (5) and (7) (e) and (f), and Section 265.94 (b).

FACILITY NAME Cannon Air Force Base EPA I.D.# NM 7572124454
 WELL NUMBER MW-N SAMPLE COLLECTION BY Ian Broussard
 LABORATORY NAME HydroLogic DATE SAMPLED 10/02/96
Laboratories. Inc.
 TIME SAMPLED 1215 DATE RECEIVED BY LAB 10/03/96

PARAMETERS	STORET CODE	UNITS	VALUE	DATE ANALYZED
Elevation of G. Water	71993	ft.	3992.30	10/02/96
Well Depth	N/A	ft.	297.5	10/02/96
Well Casing Volume	N/A	gal.	13.0	10/02/96
Pump Rate	N/A	gal/min	1	10/02/96
Pump Period	72004	min.	40	10/02/96
Volume Evacuated	73675	gal.	39	10/02/96
Sampler Material	N/A	N/A	TEFLN	10/02/96
Well Sampling Method:			PSPMP	

Assessment Monitoring Quarterly Report cont.

Well Number: MW-N Facility Name Cannon Air Force Base

INDICATOR PARAMETERS

PARAMETERS	STORET CODE	UNITS	VALUE	DETECTION LIMIT	DATE ANALYZED	METHOD USED
pH	00400	S.U.	<u>7.34 (f)</u>	<u>N/A</u>	<u>10/02/96</u>	
	00400	S.U.	<u>7.56 (f)</u>	<u>N/A</u>	<u>10/02/96</u>	<u>Field Probe</u>
	00400	S.U.	<u>7.65 (f)</u>	<u>N/A</u>	<u>10/02/96</u>	
	00400	S.U.	<u>6.95 (f)</u>	<u>N/A</u>	<u>10/02/96</u>	
Specific Conductivity	00095	umhos/cm	<u>0.517 (f)</u>	<u>N/A</u>	<u>10/02/96</u>	
	00095	umhos/cm	<u>0.526 (f)</u>	<u>N/A</u>	<u>10/02/96</u>	<u>Field Probe</u>
	00095	umhos/cm	<u>0.524 (f)</u>	<u>N/A</u>	<u>10/02/96</u>	
	00095	umhos/cm	<u>0.522 (f)</u>	<u>N/A</u>	<u>10/02/96</u>	
T.O.X.	70354	mg/L	<u>0.0074</u>	<u>0.001</u>	<u>10/09/96</u>	
	70354	mg/L	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>SW846-9020</u>
	70354	mg/L	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	
	70354	mg/L	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	
T.O.C.	00680	mg/L	<u>1.6</u>	<u>0.15</u>	<u>10/08/96</u>	
	00680	mg/L	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>SW846-9060</u>
	00680	mg/L	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	
	00680	mg/L	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	

Assessment Monitoring Quarterly Report cont.

Well Number: MW-N Facility Name Cannon Air Force Base

INDICATOR PARAMETERS

PARAMETERS	STORET CODE	UNITS	VALUE	DETECTION LIMIT	DATE ANALYZED	METHOD USED
Chloride	00940	mg/L	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	
Iron	01045	mg/L	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
Manganese	71883	mg/L	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	
Phenols	32730	mg/L	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	
Sodium	00929	mg/L	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	
Sulfate	00945	mg/L	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>	<u>N/A</u>
Turbidity		TU	<u>10 *(f)</u>	<u>N/A</u>	<u>10/02/96</u>	Horiba-U10

*Turbidity measurement not used in determining stabilization of field parameters

DATE OF THIS REPORT: 11/04/96

SIGNATURE: *Ian Broussard*

NAME (PRINTED): Ian Broussard

APPENDIX I
FIELD FORMS

Well Purge Data Sheet for October 2, 1996 - Clovis, New Mexico

Water Column = (20.075) feet X 0.655 = Bore Volume = 13 GAL
 2 Oct,

DW = 277.425

Groundwater Quality Parameters - MWN, 2000 , 1996 TD = 297.5						
Bore Volumes	pH	Conductivity	Salinity	Dissolved Oxygen	Temperature	Turbidity
1/2 = 6.5	7.34	0.517	0.02	10.97	18.4	10
1 = 13	7.56	0.526	0.02	11.16	18.2	10
* 1 1/2 = 19.5	7.85	0.524	0.02	11.12	18.0	10
2 = 26	6.95	0.522	0.04	10.30	18.6	10
2 1/2 = 32.5	7.67	0.580	0.02	10.37	17.9	9
3 = 39	7.85	0.576	0.02	10.74	18.2	10

WC = 297.5
 - 277.425

 20.075

* recalibrated tester prior to this measurement

Water Column = (18.4) feet X 0.655 = Bore Volume = ~12 GAL

DW = 285.500

Groundwater Quality Parameters - MWO, 2 Oct, 1996 TD = 303.9						
Bore Volumes	pH	Conductivity	Salinity	Dissolved Oxygen	Temperature	Turbidity
1/2 = 6	7.34 7.34	1.97 1.97	0.09 0.02	11.95 10.97	18.4 18.4	10 10
1 = 12	7.34	1.98	0.09	12.82	17.8	10
1 1/2 = 18	7.33	1.97	0.09	12.55	17.5	2
2 = 24	7.33	1.97	0.09	12.72	17	10
2 1/2 = 30	7.34	1.97	0.09	12.71	17.1	10
3 = 36	7.32	1.98	0.09	12.71	16.9	10

WC = 303.9
 285.5

 18.4

Concl = mS/cm

DO = mg/l
 sec = %

INITIAL CALIB 3.86 4.57 0.23 9.14 22.0 10

DAILY QUALITY CONTROL REPORT

PROJECT: Cannon AFB 3/4 Sampling
 LOCATION: Landfills downgradient wells

Date: 2 Oct 1996
 Weather: Clear
 Temp: 66°F
 Wind: 15-25 NW
 Humidity: 25%

PERSONNEL

Name	Position	Hours Worked
<u>Jan Broussard</u>	<u>Field team leader</u>	<u>8.0</u>
<u>John Wang</u>	<u>Technical Support</u>	<u>2.0</u>

FIELD INSTALLATIONS

ID No(s): _____
 Drilled: _____
 from _____
 to _____
 Footage _____
 Casing Set: _____
 Screen _____
 Riser _____

EQUIPMENT

Equipment	Calibrated
<u>OVA Foxboro 128</u>	<u>Yes/No</u>
<u>O₂/LEL</u>	<u>Yes/No</u>
<u>pH/Conductivity/Temp. Horiba U-10</u>	<u>Yes/No</u>
<u>Other Solinst 300 FT water interface Probe</u>	<u>Yes/No</u>

Hours Drilling _____
 Hours Installing _____
 Hours Decon _____
 Hours Development _____
 Hours Sampling _____
 Hours Shut Down _____
 # of Samples: _____ Type _____

SAMPLING SUMMARY:

Boring/Well No.	Sample No.	Media Sampled	Depth	QC	Analyses
<u>MN-N</u>	<u>CAFB-MWN-</u>	<u>water</u>	<u>277.4</u>	_____	<u>Appendix II metals, pesticides/PCBs, Herbicides, VOCs, SVOCs, TCDD, CN⁻, Sulfide, TOC, TOX</u>
<u>MW-O</u>	<u>CAFB-MWO</u>	<u>water</u>	<u>285.5</u>	_____	

Description of work performed: Gauged & sampled wells MW-N & MW-O. Sampling involved probing with the OVA for methane immediately prior to the wells were opened. Three 200ml samples were collected prior to sampling. A MRI split and a duplicate were collected from MW-N.

Health and Safety Levels: D Summary of Monitoring Activities: Methane levels were measured prior to sampling wells.

Problems encountered/Corrective Actions: The Horiba U-10 did not seem to perform correctly during turbidity measurements. The LED consistently reported a 10 for all turbidity readings.

Any changes from work plan? No changes - high winds make sampling a challenge.

Signature: J. Broussard

APPENDIX II

ANALYTICAL RESULTS/QUALITY CONTROL DATA

Oct 24, 1996

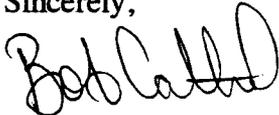
Foothill Engineering
Mr. Scott Koepsel
350 Indiania Street
Suite 415
Golden, CO 80401

Dear Mr. Koepsel,

Please find enclosed the report for 6 samples received at HydroLogic Laboratories, Inc. on 04 Oct 1996 for your project number, 95-321. The report reference is L3410.

If you have any questions, please call (303) 659-0497.

Sincerely,



Bob Cathel
Project Manager

Sample Cross Reference Table

Company Name: Foothill Engineering

HydroLogic Login Number: L3410

HydroLogic Sample Number	Client Sample Identification	Sample Date/Time
L3410-1	CAFB-100296-MWN-1	02 Oct 96 12:15
L3410-2	CAFB-100296-TB02	02 Oct 96 00:00
L3410-3	CAFB-100296-MWN-2	02 Oct 96 12:30
L3410-4	CAFB-100296-TB03	02 Oct 96 12:30
L3410-5	CAFB-100296-MWO-1	02 Oct 96 14:00
L3410-6	CAFB-100296-TB04	02 Oct 96 14:00

DATE AND TIME SUMMARY

Company Name: Foothill Engineering
Project: 95-321

HydroLogic Login Number: L3410

METHOD	COLLECTED	PREPARED	ANALYZED
---------------	------------------	-----------------	-----------------

SAMPLE NUMBER: L3410-1 **CLIENT ID:** CAFB-100296-MWN-1 **MATRIX:** Aqueous

SW846, APIX	10/02/96 12:15	10/09/96	10/22/96 17:57
SW846, 9030	10/02/96 12:15	10/08/96	10/08/96 08:04
SW846, 8260	10/02/96 12:15	10/14/96	10/14/96 15:11
SW846, 8150	10/02/96 12:15	10/08/96	10/14/96 22:25
SW846, 8080	10/02/96 12:15	10/08/96	10/11/96 01:18
SW846, 7841	10/02/96 12:15	10/09/96	10/10/96 13:39
SW846, 7740	10/02/96 12:15	10/09/96	10/10/96 12:03
SW846, 7421	10/02/96 12:15	10/09/96	10/10/96 10:27
SW846, 7060	10/02/96 12:15	10/09/96	10/10/96 14:40
SW846, 7041	10/02/96 12:15	10/09/96	10/14/96 14:51
SW846, 6010	10/02/96 12:15	10/09/96	10/09/96 17:59
SW846, 6010	10/02/96 12:15	10/09/96	10/10/96 09:26
SW-846, 9060	10/02/96 12:15	10/08/96	10/08/96 10:35
SW-846, 9020	10/02/96 12:15	10/09/96	10/09/96 10:42
SW-846, 7470	10/02/96 12:15	10/10/96	10/10/96 15:42
SW-846, 9012	10/02/96 12:15	10/15/96	10/17/96 09:06

SAMPLE NUMBER: L3410-2 **CLIENT ID:** CAFB-100296-TB02 **MATRIX:** Aqueous

SW846, 8260	10/02/96 00:00	10/14/96	10/14/96 16:31
-------------	----------------	----------	----------------

SAMPLE NUMBER: L3410-3 **CLIENT ID:** CAFB-100296-MWN-2 **MATRIX:** Aqueous

SW846, APIX	10/02/96 12:30	10/09/96	10/22/96 18:43
SW846, 9030	10/02/96 12:30	10/08/96	10/08/96 08:04
SW846, 8260	10/02/96 12:30	10/14/96	10/14/96 17:11
SW846, 8150	10/02/96 12:30	10/08/96	10/14/96 23:02
SW846, 8080	10/02/96 12:30	10/08/96	10/11/96 01:59
SW846, 7841	10/02/96 12:30	10/09/96	10/10/96 13:43
SW846, 7740	10/02/96 12:30	10/09/96	10/10/96 10:42
SW846, 7421	10/02/96 12:30	10/09/96	10/10/96 11:57
SW846, 7060	10/02/96 12:30	10/09/96	10/10/96 13:03
SW846, 7041	10/02/96 12:30	10/09/96	10/14/96 16:03
SW846, 6010	10/02/96 12:30	10/09/96	10/09/96 18:11
SW846, 6010	10/02/96 12:30	10/09/96	10/10/96 09:39
SW-846, 9060	10/02/96 12:30	10/08/96	10/08/96 10:35
SW-846, 9020	10/02/96 12:30	10/09/96	10/09/96 12:16
SW-846, 7470	10/02/96 12:30	10/10/96	10/10/96 15:44
SW-846, 9012	10/02/96 12:30	10/17/96	10/17/96 09:06

SAMPLE NUMBER: L3410-4 **CLIENT ID:** CAFB-100296-TB03 **MATRIX:** Aqueous

SW846, 8260	10/02/96 12:30	10/14/96	10/14/96 17:51
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DATE AND TIME SUMMARY

Company Name: Foothill Engineering
Project: 95-321

HydroLogic Login Number: L3410

METHOD	COLLECTED	PREPARED	ANALYZED
SAMPLE NUMBER: L3410-5 CLIENT ID: CAFB-100296-MWO-1 MATRIX: Aqueous			
SW846, APIX	10/02/96 14:00	10/09/96	10/22/96 19:28
SW846, 9030	10/02/96 14:00	10/08/96	10/08/96 08:04
SW846, 8260	10/02/96 14:00	10/14/96	10/14/96 18:31
SW846, 8150	10/02/96 14:00	10/08/96	10/14/96 21:48
SW846, 8080	10/02/96 14:00	10/08/96	10/11/96 02:40
SW846, 7841	10/02/96 14:00	10/09/96	10/10/96 14:06
SW846, 7740	10/02/96 14:00	10/09/96	10/10/96 11:05
SW846, 7421	10/02/96 14:00	10/09/96	10/10/96 10:53
SW846, 7060	10/02/96 14:00	10/09/96	10/10/96 14:44
SW846, 7041	10/02/96 14:00	10/09/96	10/14/96 15:21
SW846, 6010	10/02/96 14:00	10/09/96	10/09/96 18:21
SW846, 6010	10/02/96 14:00	10/09/96	10/10/96 09:48
SW-846, 9060	10/02/96 14:00	10/08/96	10/08/96 10:35
SW-846, 9020	10/02/96 14:00	10/09/96	10/09/96 14:08
SW-846, 7470	10/02/96 14:00	10/10/96	10/10/96 15:51
SW-846, 9012	10/02/96 14:00	10/15/96	10/17/96 09:06
SAMPLE NUMBER: L3410-6 CLIENT ID: CAFB-100296-TB04 MATRIX: Aqueous			
SW846, 8260	10/02/96 14:00	10/14/96	10/14/96 19:11



HydroLogic
Laboratories, Inc.

CHAIN-OF-CUSTODY RECORD

695 N. 7th Ave.
Brighton, Colorado 80601-1559 303-659-0497

Purchase Order # _____

Client Company Foothill Engineering Phone # (303) 278-0622
Client Contact Scott Koepsell Fax # (303) 278-0624
Project Location Cannon AFB, NM Project Number 95-321

Requested Parameters

SAMPLE IDENTITY	Matrix Code	Date/Time Sampled	Type of Preservative	Requested Parameters					Total # of Containers
				ARIX METALS	ARIX UGS	ARIX SLUGS	CYANIDE	SULFIDE	
CAFB-100296-MUN-2	W	10/2/96/1230		1	3	2	1	1	8
CAFB-100296-TBO-3	W	10/2/96/1230			2				2

Matrix Code: W=Water L=Liquid S=Soil O=Oil SL=Sludge

Relinquished by: (Signature) <u>San Broussard</u>	Date	Time	Received by: (Signature)	Date	Time
Relinquished by: (Signature)	0610	10/3/96	Received by: (Signature)		
Temp.? <u>0</u> on upon Receipt?			Received for Inventory by: <u>Aroni Rusk</u>	10/4/96	1130

Analytical Sample Receipt/Check-in Record

Shipped Via: Fed Ex 983-0994-1B

(Airbill # if applicable)

Client: Foothills Engineering

HydroLogic Project #(s): L 3410

HydroLogic Cooler(s): (Y) or N

Cooler #	<u>1485</u>				
Ice Packs	<u>(Y)</u> N	Y N	Y N	Y N	Y N
Temp. °C	<u>10</u>				

	YES	NO	SEE COMMENTS
1. Custody seal(s) present:	<u>X</u>		<u>No date or sig</u>
2. Containers checked for radioactivity:	<u>X</u>		
3. Chain of Custody present:	<u>X</u>		
(A) COC agrees with bottles received:	<u>X</u>		
(B) COC signed with date & time:	<u>X</u>		
4. Containers broken or leaking:		<u>X</u>	
5. Short holding time worksheet completed:		<u>N/A</u>	
6. VOA samples preserved:	<u>X</u>		
7. pH measured on all preserved bottles:	<u>X</u>		
Check for chlorine & sulfides if requesting CN:		<u>N/A</u>	
8. Dissolved metals samples present:		<u>X</u>	
9. Multi-phase sample(s) present:		<u>X</u>	

Comments: Cooscoits not initialed

Sample Administrators Signature/Date: _____

Analytical Sample Receipt/Check-in Record

Shipped Via: Fed Ex 988-0994-164

(Airbill # if applicable)

Client: Foothills Engineering

HydroLogic Project #(s): L 3410 3411

HydroLogic Cooler(s): (Y) or N

Cooler #	<u>L075</u>				
Ice Packs ^{ICE} _{CUBS}	<u>(Y)</u> N	Y N	Y N	Y N	Y N
Temp. °C	<u>3</u>				

	YES	NO	SEE COMMENTS
1. Custody seal(s) present:	<u>X</u>		<u>No Date or Sig.</u>
2. Containers checked for radioactivity:	<u>X</u>		
3. Chain of Custody present:	<u>X</u>		
(A) COC agrees with bottles received:	<u>X</u>		
(B) COC signed with date & time:	<u>X</u>		
4. Containers broken or leaking:		<u>X</u>	
5. Short holding time worksheet completed:		<u>N/A</u>	
6. VOA samples preserved:	<u>X</u>		
7. pH measured on all preserved bottles:	<u>X</u>		
Check for chlorine & sulfides if requesting CN:	<u>X</u>		
8. Dissolved metals samples present:		<u>X</u>	
9. Multi-phase sample(s) present:		<u>X</u>	

Comments: _____

Sample Administrators Signature/Date: _____

Analytical Sample Receipt/Check-in Record

Shipped Via: Fed Ex 988 - 0994 - 182

(Airbill # if applicable)

Client: Foothill Eng'g Engineering

HydroLogic Project #(s): L 34H 3410

HydroLogic Cooler(s): Y or N

Cooler #					
Ice Packs	<input checked="" type="checkbox"/> N	Y N	Y N	Y N	Y N
Temp. °C	4				

melted/cubed

	YES	NO	SEE COMMENTS
1. Custody seal(s) present:	<input checked="" type="checkbox"/>		<i>No sig on date</i>
2. Containers checked for radioactivity:	<input checked="" type="checkbox"/>		
3. Chain of Custody present:	<input checked="" type="checkbox"/>		
(A) COC agrees with bottles received:	<input checked="" type="checkbox"/>		
(B) COC signed with date & time:	<input checked="" type="checkbox"/>		
4. Containers broken or leaking:		<input checked="" type="checkbox"/>	
5. Short holding time worksheet completed:		<i>N/A</i>	
6. VOA samples preserved:	<input checked="" type="checkbox"/>		
7. pH measured on all preserved bottles:	<input checked="" type="checkbox"/>		
Check for chlorine & sulfides if requesting CN:		<i>N/A</i>	
8. Dissolved metals samples present:		<i>N/A</i>	
9. Multi-phase sample(s) present:		<i>N/A X</i>	

Comments: _____

Sample Administrators Signature/Date: _____

Analytical Sample Receipt/Check-in Record

Shipped Via: FedEx 988-0794-164
(Airbill # if applicable)

Client: Foothills Eng.

HydroLogic Project #(s): L 3411 3412

HydroLogic Cooler(s): (Y) or N

Cooler #	480				
Ice Packs	(Y) N	Y N	Y N	Y N	Y N
Temp. °C	1				

	YES	NO	SEE COMMENTS
1. Custody seal(s) present:	<u>X</u>	_____	<u>No date of sig.</u>
2. Containers checked for radioactivity:	<u>X</u>	_____	_____
3. Chain of Custody present:	<u>X</u>	_____	_____
(A) COC agrees with bottles received:	<u>X</u>	_____	_____
(B) COC signed with date & time:	<u>X</u>	_____	_____
4. Containers broken or leaking:	_____	<u>X</u>	_____
5. Short holding time worksheet completed:	_____	<u>N/A</u>	_____
6. VOA samples preserved:	<u>X</u>	_____	_____
7. pH measured on all preserved bottles:	<u>X</u>	_____	_____
Check for chlorine & sulfides if requesting CN:	<u>X</u>	_____	_____
8. Dissolved metals samples present:	_____	<u>X</u>	_____
9. Multi-phase sample(s) present:	_____	<u>X</u>	_____

Comments: _____

Sample Administrators Signature/Date: _____

Analytical Sample Receipt/Check-in Record

Shipped Via: Fed Ex 988-0994-207
(Airbill # if applicable)

Client: Foothills Engineering

HydroLogic Project #(s): L 3415 3410

HydroLogic Cooler(s): (Y) or N

Cooler #	<u>1407</u>				
Ice Packs	<u>(Y)</u> N	Y N	Y N	Y N	Y N
Temp. °C	<u>4</u>				

	YES	NO	SEE COMMENTS
1. Custody seal(s) present:	<u>X</u>		<u>No Date or sig.</u>
2. Containers checked for radioactivity:	<u>X</u>		
3. Chain of Custody present:	<u>X</u>		
(A) COC agrees with bottles received:	<u>X</u>		
(B) COC signed with date & time:	<u>X</u>		
4. Containers broken or leaking:		<u>X</u>	
5. Short holding time worksheet completed:		<u>N/A</u>	
6. VOA samples preserved:		<u>N/A</u>	
7. pH measured on all preserved bottles:		<u>N/A</u>	
Check for chlorine & sulfides if requesting CN:		<u>N/A</u>	
8. Dissolved metals samples present:		<u>X</u>	
9. Multi-phase sample(s) present:		<u>X</u>	

Comments: _____

Sample Administrators Signature/Date: _____

Analytical Sample Receipt/Check-in Record

Shipped Via: Fed Ex 988-0994-191
 (Airbill # if applicable)

Client: Foothills Engineering

HydroLogic Project #(s): L 6099 3413 3410 HydroLogic Cooler(s): (Y) or N
21014

Cooler #	6099				
Ice Packs ^{Ice} _{cubes}	(Y) N	Y N	Y N	Y N	Y N
Temp. °C	4				

	YES	NO	SEE COMMENTS
1. Custody seal(s) present:	<u>X</u>	_____	<u>No date or sig.</u>
2. Containers checked for radioactivity:	<u>X</u>	_____	_____
3. Chain of Custody present:	<u>X</u>	_____	_____
(A) COC agrees with bottles received:	<u>X</u>	_____	_____
(B) COC signed with date & time:	<u>X</u>	_____	_____
4. Containers broken or leaking:	_____	<u>X</u>	_____
5. Short holding time worksheet completed:	_____	<u>N/A</u>	_____
6. VOA samples preserved:	<u>X</u>	_____	_____
7. pH measured on all preserved bottles:	<u>X</u>	_____	_____
Check for chlorine & sulfides if requesting CN:	<u>X</u>	_____	_____
8. Dissolved metals samples present:	_____	<u>X</u>	_____
9. Multi-phase sample(s) present:	_____	<u>X</u>	_____

Comments: _____

Sample Administrators Signature/Date: _____

**FINAL
RESULTS**

Form 1 - Data Summary Report
 Prepared By: HydroLogic Laboratories, Inc.

Client ID: CAFB-100296-MWN-1
 Project Number: 95-321
 Sample ID: L3410-1
 Site / Project ID: CANNON AFB, NM
 Run ID: R5053
 Collection Date: 02-OCT-96
 Received Date: 04-OCT-96
 Report Date: 11-OCT-96

Analyte	CAS No.	Dil	Sample Conc.	Units	Qual	MDL	RL
SW846 Met. 8260 (APIX)							
Preparation Date: 14-OCT-96							
Analysis Date: 14-OCT-96 15:11							
Workgroup Number: WG8106							
Acetone	67-64-1	1	ND	ug/L	U	1.5	100
Acetonitrile	75-05-8	1	ND	ug/L	U	.5	100
Acrolein	107-02-8	1	ND	ug/L	U	.5	100
Acrylonitrile	107-13-1	1	ND	ug/L	U	.5	100
Allyl chloride	107-05-1	1	ND	ug/L	U	.5	10
Benzene	71-43-2	1	ND	ug/L	U	.39	5
Bromodichloromethane	75-27-4	1	ND	ug/L	U	.64	5
Bromoform	75-25-2	1	ND	ug/L	U	.47	5
Bromomethane	74-83-9	1	ND	ug/L	U	.49	10
2-Butanone	78-93-3	1	ND	ug/L	U	1.1	100
Carbon disulfide	75-15-0	1	ND	ug/L	U	1.1	100
Carbon tetrachloride	56-23-5	1	ND	ug/L	U	1.4	5
Chlorobenzene	108-90-7	1	ND	ug/L	U	.44	5
Chloroethane	75-00-3	1	ND	ug/L	U	.54	10
Chloroform	67-66-3	1	ND	ug/L	U	1.4	5
Chloromethane	74-87-3	1	ND	ug/L	U	2	10
Dibromochloromethane	124-48-1	1	ND	ug/L	U	.5	5
1,2-Dibromo-3-chloropropane	96-12-8	1	ND	ug/L	U	.61	100
1,2-Dibromoethane	106-93-4	1	ND	ug/L	U	.5	5
Dibromomethane	74-95-3	1	ND	ug/L	U	1.4	5
trans-1,4-Dichloro-2-butene	110-57-6	1	ND	ug/L	U	5	5
Dichlorodifluoromethane	75-71-8	1	ND	ug/L	U	.43	10
1,1-Dichloroethane	75-34-3	1	ND	ug/L	U	1.7	5
1,2-Dichloroethane	107-06-2	1	ND	ug/L	U	2.1	5
1,1-Dichloroethene	75-35-4	1	ND	ug/L	U	.48	5
trans-1,2-Dichloroethene	156-60-5	1	ND	ug/L	U	.55	5
cis-1,2-Dichloroethene	156-59-2	1	ND	ug/L	U	.5	5
1,2-Dichloropropane	78-87-5	1	ND	ug/L	U	.51	5
cis-1,3-Dichloropropene	10061-01-5	1	ND	ug/L	U	.78	5
trans-1,3-Dichloropropene	10061-02-6	1	ND	ug/L	U	.55	5
1,4-Dioxane	123-91-1	1	ND	ug/L	U	100	100
Ethylbenzene	100-41-4	1	ND	ug/L	U	.75	5

Review By: Bob Cathel

Report Approved By: Karen Kuoppala

- Qual - U = Analyte Not Detected above the Method Detection Limit
 - J = Estimated Concentration, B = Analyte Detected in the Blank
 - E = Analyte Conc. is above the Method Calibration Range
- Dil - Sample Dilution Factor
- ND - Sample Concentration Not Detected above MDL
- MDL - Method Detection Limit
- RL - Method Reporting Limit

Form 1 - Data Summary Report
 Prepared By: HydroLogic Laboratories, Inc.

Client ID: CAFB-100296-MWN-1
 Project Number: 95-321
 Sample ID: L3410-1
 Site / Project ID: CANNON AFB, NM
 Run ID: R5053
 Collection Date: 02-OCT-96
 Received Date: 04-OCT-96
 Report Date: 11-OCT-96

Analyte	CAS No.	Dil	Sample Conc.	Units	Qual	MDL	RL
Ethyl methacrylate	97-63-2	1	ND	ug/L	U	.5	5
2-Hexanone	591-78-6	1	ND	ug/L	U	.5	100
Iodomethane	74-88-4	1	ND	ug/L	U	10	10
Methacrylonitrile	126-98-7	1	ND	ug/L	U	.5	100
Methylene chloride	75-09-2	1	ND	ug/L	U	.75	5
Methyl methacrylate	80-62-6	1	ND	ug/L	U	.5	50
4-Methyl-2-pentanone	108-10-1	1	ND	ug/L	U	.56	50
Propionitrile	107-12-0	1	ND	ug/L	U	.5	5
Styrene	100-42-5	1	ND	ug/L	U	.5	5
1,1,1,2-Tetrachloroethane	630-20-6	1	ND	ug/L	U	.45	5
1,1,2,2-Tetrachloroethane	79-34-5	1	ND	ug/L	U	.63	5
Tetrachloroethene	127-18-4	1	ND	ug/L	U	.49	5
Toluene	108-88-3	1	ND	ug/L	U	.85	5
1,1,1-Trichloroethane	71-55-6	1	ND	ug/L	U	1.7	5
1,1,2-Trichloroethane	79-00-5	1	ND	ug/L	U	1.2	5
Trichloroethene	79-01-6	1	ND	ug/L	U	.42	5
Trichlorofluoromethane	75-69-4	1	ND	ug/L	U	.5	5
1,2,3-Trichloropropane	96-18-4	1	ND	ug/L	U	1.1	5
Vinyl acetate	108-05-4	1	ND	ug/L	U	5	10
Vinyl chloride	75-01-4	1	ND	ug/L	U	.47	2
Xylene (Total)	1330-20-7	1	ND	ug/L	U	1	5
Dibromofluoromethane	SURROGATE	1	106	%			
Toluene-d8	SURROGATE	1	91	%			
4-Bromofluorobenzene	SURROGATE	1	101	%			

Review By: Bob Cathel

Report Approved By: Karen Kuoppala

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 - E = Analyte Conc. is above the Method Calibration Range
- Dil - Sample Dilution Factor
- ND - Sample Concentration Not Detected above MDL
- MDL - Method Detection Limit
- RL - Method Reporting Limit

Form 1 - Data Summary Report
 Prepared By: HydroLogic Laboratories, Inc.

Client ID: CAFB-100296-MWN-1
 Project Number: 95-321
 Sample ID: L3410-1
 Site / Project ID: CANNON AFB, NM
 Run ID: R5053
 Collection Date: 02-OCT-96
 Received Date: 04-OCT-96
 Report Date: 11-OCT-96

Analyte	CAS No.	Dil	Sample Conc.	Units	Qual	MDL	RL
SW846 Met. 8270 (APIX)							
Preparation Date: 09-OCT-96							
Analysis Date: 22-OCT-96 17:57							
Workgroup Number: WG8060							
Acenaphthene	83-32-9	1	ND	ug/L	U	4.2	5
Acenaphthylene	208-96-8	1	ND	ug/L	U	3.5	5
Acetophenone	98-86-2	1	ND	ug/L	U	2.9	5
2-Acetylaminofluorene	53-96-3	1	ND	ug/L	U	100	100
4-Aminobiphenyl	92-67-1	1	ND	ug/L	U	3.3	10
Aniline	62-53-3	1	ND	ug/L	U	2.4	5
Anthracene	120-12-7	1	ND	ug/L	U	2.6	5
Aramite	140-57-8	1	ND	ug/L	U	10	10
Benz(a)anthracene	56-55-3	1	ND	ug/L	U	2.8	5
Benzo(b)fluoranthene	205-99-2	1	ND	ug/L	U	2.6	5
Benzo(k)fluoranthene	207-08-9	1	ND	ug/L	U	3.9	5
Benzo(g,h,i)perylene	191-24-2	1	ND	ug/L	U	3.1	5
Benzo(a)pyrene	50-32-8	1	ND	ug/L	U	3.5	5
Benzyl alcohol	100-51-6	1	ND	ug/L	U	2.4	5
4-Bromophenyl phenyl ether	101-55-3	1	ND	ug/L	U	2.6	5
Butyl benzyl phthalate	85-68-7	1	ND	ug/L	U	2.7	5
2-sec-Butyl-4,6-dinitrophenol	88-85-7	1	ND	ug/L	U	10	10
4-Chloroaniline	106-47-8	1	ND	ug/L	U	3.8	5
Bis(2-chloroethoxy)methane	111-91-1	1	ND	ug/L	U	2.9	5
Bis(2-chloroethyl) ether	111-44-4	1	ND	ug/L	U	2.1	5
Bis(2-chloroisopropyl) ether	108-60-1	1	ND	ug/L	U	1.9	5
4-Chloro-3-methylphenol	59-50-7	1	ND	ug/L	U	3.2	5
2-Chloronaphthalene	91-58-7	1	ND	ug/L	U	4.2	5
2-Chlorophenol	95-57-8	1	ND	ug/L	U	2.9	5
4-Chlorophenyl phenyl ether	7005-72-3	1	ND	ug/L	U	3.9	5
Chrysene	218-01-9	1	ND	ug/L	U	4.2	5
Dibenz(a,h)anthracene	53-70-3	1	ND	ug/L	U	3.4	5
Dibenzofuran	132-64-9	1	ND	ug/L	U	4	5
1,3-Dichlorobenzene	541-73-1	1	ND	ug/L	U	3	5
1,4-Dichlorobenzene	106-46-7	1	ND	ug/L	U	2.9	5
1,2-Dichlorobenzene	95-50-1	1	ND	ug/L	U	2.6	5
Di-n-butyl phthalate	84-74-2	1	ND	ug/L	U	5.2	20

Review By: Bob Cathel

Report Approved By: Karen Kuoppala

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 - J = Estimated Concentration, B = Analyte Detected in the Blank
 - E = Analyte Conc. is above the Method Calibration Range
- Dil - Sample Dilution Factor
- ND - Sample Concentration Not Detected above MDL
- MDL - Method Detection Limit
- RL - Method Reporting Limit

Form 1 - Data Summary Report
 Prepared By: HydroLogic Laboratories, Inc.

Client ID: CAFB-100296-MWN-1
 Project Number: 95-321
 Sample ID: L3410-1
 Site / Project ID: CANNON AFB, NM
 Run ID: R5053
 Collection Date: 02-OCT-96
 Received Date: 04-OCT-96
 Report Date: 11-OCT-96

Analyte	CAS No.	Dil	Sample Conc.	Units	Qual	MDL	RL
3,3'-Dichlorobenzidine	91-94-1	1	ND	ug/L	U	3.6	10
2,4-Dichlorophenol	120-83-2	1	ND	ug/L	U	4.4	5
2,6-Dichlorophenol	87-65-0	1	ND	ug/L	U	4.4	5
Diethyl phthalate	84-66-2	1	ND	ug/L	U	5.1	10
p-Dimethylaminoazobenzene	60-11-7	1	ND	ug/L	U	2.5	5
7,12-Dimethylbenz(a)anthracene	57-97-6	1	ND	ug/L	U	3.4	5
3,3'-Dimethylbenzidine	119-93-7	1	ND	ug/L	U	5	10
a,a-Dimethylphenethylamine	122-09-8	1	ND	ug/L	U	4.5	100
2,4-Dimethylphenol	105-67-9	1	ND	ug/L	U	3.2	5
Dimethyl phthalate	131-11-3	1	ND	ug/L	U	4.8	5
1,3-Dinitrobenzene	99-65-0	1	ND	ug/L	U	5	10
4,6-Dinitro-2-methylphenol	534-52-1	1	ND	ug/L	U	4.3	25
2,4-Dinitrophenol	51-28-5	1	ND	ug/L	U	6.9	25
2,4-Dinitrotoluene	121-14-2	1	ND	ug/L	U	2.9	5
2,6-Dinitrotoluene	606-20-2	1	ND	ug/L	U	3.8	5
Di-n-octyl phthalate	117-84-0	1	ND	ug/L	U	2.7	5
Diphenylamine	122-39-4	1	ND	ug/L	U	4.2	10
bis(2-ethylhexyl) phthalate	117-81-7	1	ND	ug/L	UB	3.6	5
Ethyl methanesulfonate	62-50-0	1	ND	ug/L	U	2.6	10
Fluoranthene	206-44-0	1	ND	ug/L	U	4	5
Fluorene	86-73-7	1	ND	ug/L	U	3.3	5
Hexachlorobenzene	118-74-1	1	ND	ug/L	U	2.5	5
Hexachlorobutadiene	87-68-3	1	ND	ug/L	U	3	5
Hexachlorocyclopentadiene	77-47-4	1	ND	ug/L	U	2.2	5
Hexachloroethane	67-72-1	1	ND	ug/L	U	4.7	5
Hexachloropropene	1888-71-7	1	ND	ug/L	U	5	5
Hexachlorophene	70-30-4	1	ND	ug/L	U	100	100
Indeno(1,2,3-cd)pyrene	193-39-5	1	ND	ug/L	U	3.1	5
Isophorone	78-59-1	1	ND	ug/L	U	3	5
Isosafrole	120-58-1	1	ND	ug/L	U	20	20
Methapyrilene	91-80-5	1	ND	ug/L	U	10	10
3-Methylcholanthrene	56-49-5	1	ND	ug/L	U	2.7	5
Methyl methanesulfonate	66-27-3	1	ND	ug/L	U	2.9	5
2-Methylnaphthalene	91-57-6	1	ND	ug/L	U	2.8	5
2-Methylphenol	95-48-7	1	ND	ug/L	U	1.9	5
3&4-Methylphenol	NA	1	ND	ug/L	U	2	5

Review By: Bob Cathel

Report Approved By: Karen Kuoppala

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- Dil - Sample Dilution Factor
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 MDL - Method Detection Limit
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Form 1 - Data Summary Report
 Prepared By: HydroLogic Laboratories, Inc.

Client ID: CAFB-100296-MWN-1
 Project Number: 95-321
 Sample ID: L3410-1
 Site / Project ID: CANNON AFB, NM
 Run ID: R5053
 Collection Date: 02-OCT-96
 Received Date: 04-OCT-96
 Report Date: 11-OCT-96

Analyte	CAS No.	Dil	Sample Conc.	Units	Qual	MDL	RL
Naphthalene	91-20-3	1	ND	ug/L	U	2.4	5
1,4-Naphthoquinone	130-15-4	1	ND	ug/L	U	10	10
1-Naphthylamine	134-32-7	1	ND	ug/L	U	3.8	5
2-Naphthylamine	91-59-8	1	ND	ug/L	U	3.9	5
2-Nitroaniline	88-74-4	1	ND	ug/L	U	3.7	25
3-Nitroaniline	99-09-2	1	ND	ug/L	U	3.4	25
4-Nitroaniline	100-01-6	1	ND	ug/L	U	6.4	25
Nitrobenzene	98-95-3	1	ND	ug/L	U	4.7	5
2-Nitrophenol	88-75-5	1	ND	ug/L	U	4.3	5
4-Nitrophenol	100-02-7	1	ND	ug/L	U	8.4	25
N-Nitroso-di-n-butylamine	924-16-3	1	ND	ug/L	U	3	5
N-Nitrosodiethylamine	55-18-5	1	ND	ug/L	U	10	10
N-Nitrosodimethylamine	62-75-9	1	ND	ug/L	U	2	10
N-Nitrosodiphenylamine	86-30-6	1	ND	ug/L	U	5.2	25
N-Nitrosodipropylamine	621-64-7	1	ND	ug/L	U	3.1	5
N-Nitrosomethylethylamine	10595-95-6	1	ND	ug/L	U	10	10
N-Nitrosomorpholine	59-89-2	1	ND	ug/L	U	10	10
N-Nitrosopiperidine	100-75-4	1	ND	ug/L	U	3.4	10
N-Nitrosopyrrolidine	930-55-2	1	ND	ug/L	U	10	10
5-Nitro-o-toluidine	99-55-8	1	ND	ug/L	U	10	10
4-Nitroquinoline-n-oxide	56-57-5	1	ND	ug/L	U	100	100
Pentachlorobenzene	608-93-5	1	ND	ug/L	U	3.9	5
Pentachloroethane	76-01-7	1	ND	ug/L	U	10	10
Pentachloronitrobenzene	82-68-8	1	ND	ug/L	U	4.7	10
Pentachlorophenol	87-86-5	1	ND	ug/L	U	5.7	25
Phenacetin	62-44-2	1	ND	ug/L	U	5.9	25
Phenanthrene	85-01-8	1	ND	ug/L	U	2.5	5
Phenol	108-95-2	1	ND	ug/L	U	3.4	5
p-Phenylenediamine	106-50-3	1	ND	ug/L	U	100	100
2-Picoline	109-06-8	1	ND	ug/L	U	3.6	5
Pronamide	23950-58-5	1	ND	ug/L	U	3.8	5
Pyrene	129-00-0	1	ND	ug/L	U	3.5	5
Pyridine	110-86-1	1	ND	ug/L	U	10	10
Safrole	94-59-7	1	ND	ug/L	U	10	10
1,2,4,5-Tetrachlorobenzene	95-94-3	1	ND	ug/L	U	5.1	10
2,3,4,6-Tetrachlorophenol	58-90-2	1	ND	ug/L	U	4.5	5

Review By: Bob Cathel

Report Approved By: Karen Kuoppala

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Form 1 - Data Summary Report
 Prepared By: HydroLogic Laboratories, Inc.

Client ID: CAFB-100296-MWN-1
 Project Number: 95-321
 Sample ID: L3410-1
 Site / Project ID: CANNON AFB, NM
 Run ID: R5053
 Collection Date: 02-OCT-96
 Received Date: 04-OCT-96
 Report Date: 11-OCT-96

Analyte	CAS No.	Dil	Sample Conc.	Units	Qual	MDL	RL
o-Toluidine	95-53-4	1	ND	ug/L	U	10	10
1,2,4-Trichlorobenzene	120-82-1	1	ND	ug/L	U	3.2	5
2,4,5-Trichlorophenol	95-95-4	1	ND	ug/L	U	5.6	25
2,4,6-Trichlorophenol	88-06-2	1	ND	ug/L	U	4.4	5
1,3,5-Trinitrobenzene	99-35-4	1	ND	ug/L	U	10	10
Nitrobenzene-d5	SURROGATE	1	64	%			
2-Fluorobiphenyl	SURROGATE	1	68	%			
p-Terphenyl-d14	SURROGATE	1	100	%			
Phenol-d6	SURROGATE	1	71	%			
2-Fluorophenol	SURROGATE	1	54	%			
2,4,6-Tribromophenol	SURROGATE	1	89	%			

Review By: Bob Cathel

Report Approved By: Karen Kuoppala

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Form 1 - Data Summary Report
 Prepared By: HydroLogic Laboratories, Inc.

Client ID: CAFB-100296-MWN-1
 Project Number: 95-321
 Sample ID: L3410-1
 Site / Project ID: CANNON AFB, NM
 Run ID: R5053
 Collection Date: 02-OCT-96
 Received Date: 04-OCT-96
 Report Date: 11-OCT-96

Analyte	CAS No.	Dil	Sample Conc.	Units	Qual	MDL	RL
SW846 Methods 3520/8080							
Preparation Date: 08-OCT-96							
Analysis Date: 11-OCT-96 01:18							
Workgroup Number: WG8029							
Aldrin	309-00-2	1	ND	ug/L	U	.05	.05
alpha-BHC	319-84-6	1	ND	ug/L	U	.018	.05
beta-BHC	319-85-7	1	ND	ug/L	U	.015	.05
delta-BHC	319-86-8	1	ND	ug/L	U	.011	.05
gamma-BHC (Lindane)	58-89-9	1	ND	ug/L	U	.013	.05
alpha-Chlordane	5103-71-9	1	ND	ug/L	J	.01	.05
gamma-Chlordane	5103-74-2	1	ND	ug/L	J	.01	.05
Chlorobenzilate	510-15-6	1	ND	ug/L	U	.05	.1
4,4'-DDD	72-54-8	1	ND	ug/L	U	.078	.1
4,4'-DDE	72-55-9	1	ND	ug/L	U	.017	.1
4,4'-DDT	50-29-3	1	ND	ug/L	U	.031	.1
Diallate	60-57-1	1	ND	ug/L	U	.5	.1
Dieldrin	60-57-1	1	ND	ug/L	U	.012	.1
Endosulfan I	959-98-8	1	ND	ug/L	U	.015	.05
Endosulfan II	33213-65-9	1	ND	ug/L	U	.013	.1
Endosulfan sulfate	1031-07-8	1	ND	ug/L	U	.018	.1
Endrin	72-20-8	1	ND	ug/L	U	.013	.1
Endrin aldehyde	7421-93-4	1	ND	ug/L	U	.081	.1
Heptachlor	76-44-8	1	ND	ug/L	U	.036	.05
Heptachlor epoxide	1024-57-3	1	ND	ug/L	U	.014	.05
Isodrin	465-73-6	1	ND	ug/L	U	.05	.1
Kepone	143-50-0	1	ND	ug/L	U	.5	.1
Methoxychlor	72-43-5	1	ND	ug/L	U	.049	.5
Toxaphene	8001-35-2	1	ND	ug/L	U	.24	2.4
Aroclor-1016	12674-11-2	1	ND	ug/L	U	.18	.5
Aroclor-1221	11104-28-2	1	ND	ug/L	U	.11	.5
Aroclor-1232	11141-16-5	1	ND	ug/L	U	.11	.5
Aroclor-1242	53469-21-9	1	ND	ug/L	U	.11	.5
Aroclor-1248	12672-29-6	1	ND	ug/L	U	.11	.5
Aroclor-1254	11097-69-1	1	ND	ug/L	U	.11	.1
Aroclor-1260	11096-82-5	1	ND	ug/L	U	.11	.1
Tetrachloro-m-xylene	SURROGATE	1	78	%			

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Report Approved By: Karen Kuoppala

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Form 1 - Data Summary Report
Prepared By: HydroLogic Laboratories, Inc.

Client ID: CAFB-100296-MWN-1
Project Number: 95-321
Sample ID: L3410-1
Site / Project ID: CANNON AFB, NM
Run ID: R5053
Collection Date: 02-OCT-96
Received Date: 04-OCT-96
Report Date: 11-OCT-96

Analyte	CAS No.	Dil	Sample Conc.	Units	Qual	MDL	RL
Decachlorobiphenyl	SURROGATE	1	108	%			
SW846 Met. 8150 (APIX)							
Preparation Date: 08-OCT-96							
Analysis Date: 14-OCT-96 22:25							
Workgroup Number: WG8030							
2,4-D	94-75-7	1	ND	ug/L	U	1	1
2,4,5-T	93-76-5	1	ND	ug/L	U	.1	.1
2,4,5-TP (Silvex)	93-72-1	1	ND	ug/L	U	.1	.1
DCAA	SURROGATE	1	79	%			

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Dil - Sample Dilution Factor
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Form 1 - Data Summary Report
 Prepared By: HydroLogic Laboratories, Inc.

Client ID: CAFB-100296-MWN-1
 Project Number: 95-321
 Sample ID: L3410-1
 Site / Project ID: CANNON AFB, NM
 Run ID: R5053
 Collection Date: 02-OCT-96
 Received Date: 04-OCT-96
 Report Date: 11-OCT-96

Analyte	CAS No.	Dil	Sample Conc.	Units	Qual	MDL	RL
SW846 Met. 6010 (APIX)							
Preparation Date: 09-OCT-96							
Analysis Date: 10-OCT-96 09:26							
Workgroup Number: WG8041							
Barium	7440-39-3	1	.062	mg/L		.00026	.02
Beryllium	7440-41-7	1	ND	mg/L	U	.00016	.004
Cadmium	7440-43-9	1	ND	mg/L	U	.0019	.005
Chromium	7440-47-3	1	ND	mg/L	U	.0045	.01
Cobalt	7440-48-4	1	ND	mg/L	U	.0053	.05
Copper	7440-50-8	1	ND	mg/L	U	.0073	.01
Nickel	7440-02-0	1	ND	mg/L	U	.0056	.02
Silver	7440-22-4	1	ND	mg/L	U	.0019	.01
Vanadium	7440-62-2	1	.014	mg/L	J	.0017	.05
Zinc	7440-66-6	1	.0234	mg/L		.0052	.02

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Form 1 - Data Summary Report
 Prepared By: HydroLogic Laboratories, Inc.

Client ID: CAFB-100296-MWN-1
 Project Number: 95-321
 Sample ID: L3410-1
 Site / Project ID: CANNON AFB, NM
 Run ID: R5053
 Collection Date: 02-OCT-96
 Received Date: 04-OCT-96
 Report Date: 11-OCT-96

Analyte	CAS No.	Dil	Sample Conc.	Units	Qual	MDL	RL
SW846 Method 7060 Analysis Date: 10-OCT-96 14:40 Workgroup Number: WG8044							
Arsenic	7440-38-2	1	ND	mg/L	U	.00073	.005
SW846 Method 7421 Analysis Date: 10-OCT-96 10:27 Workgroup Number: WG8043							
Lead	7439-92-1	1	ND	mg/L	U	.00089	.003
SW846 Method 7041 Analysis Date: 14-OCT-96 14:51 Workgroup Number: WG8042							
Antimony	7440-36-0	1	ND	mg/L	U	.00068	.006
SW846 Method 7740 Analysis Date: 10-OCT-96 12:03 Workgroup Number: WG8045							
Selenium	7782-49-2	1	.0093	mg/L		.00074	.005
SW846 Method 7841 Analysis Date: 10-OCT-96 13:39 Workgroup Number: WG8046							
Thallium	7440-26-0	1	ND	mg/L	U	.00079	.01
SW846 Method 7470 Analysis Date: 10-OCT-96 15:42 Workgroup Number: WG8078							
Mercury	7439-97-6	1	ND	mg/L	U	.00005	.0002

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Report Approved By: Karen Kuoppala

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Form 1 - Data Summary Report
 Prepared By: HydroLogic Laboratories, Inc.

Client ID: CAFB-100296-MWN-1
 Project Number: 95-321
 Sample ID: L3410-1
 Site / Project ID: CANNON AFB, NM
 Run ID: R5053
 Collection Date: 02-OCT-96
 Received Date: 04-OCT-96
 Report Date: 11-OCT-96

Analyte	CAS No.	Dil	Sample Conc.	Units	Qual	MDL	RL
SW846 Method 9012							
Analysis Date: 17-OCT-96 09:06							
Workgroup Number: WG8168							
Cyanide (tot.)	N/A	1	ND	mg/L	U	.018	.1
Cyanide (amen.)	N/A	1	ND	mg/L	U	.005	.02
SW-846, Method 9030							
Preparation Date: 08-OCT-96							
Analysis Date: 08-OCT-96 08:04							
Workgroup Number: WG8032							
Sulfide	N/A	1	ND	mg/L	U	.48	1
SW-846, Method 9060							
Analysis Date: 08-OCT-96 10:35							
Workgroup Number: WG8034							
Total Organic Carbon	N/A	1	1.6	mg/L		.15	1
SW-846, Method 9020							
Analysis Date: 09-OCT-96 10:42							
Workgroup Number: WG8099							
Total Organic Halides	N/A	1	.0074	mg/L		.001	.005

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Form 1 - Data Summary Report
 Prepared By: HydroLogic Laboratories, Inc.

Client ID: CAFB-100296-T802
 Project Number: 95-321
 Sample ID: L3410-2
 Site / Project ID: CANNON AFB,NM
 Run ID: R5087
 Collection Date: 02-OCT-96
 Received Date: 04-OCT-96
 Report Date: 15-OCT-96

Analyte	CAS No.	Dil	Sample Conc.	Units	Qual	MDL	RL
SW846 Met. 8260 (APIX)							
Preparation Date: 14-OCT-96							
Analysis Date: 14-OCT-96 16:31							
Workgroup Number: WGB106							
Acetone	67-64-1	1	ND	ug/L	U	1.5	100
Acetonitrile	75-05-8	1	ND	ug/L	U	.5	100
Acrolein	107-02-8	1	ND	ug/L	U	.5	100
Acrylonitrile	107-13-1	1	ND	ug/L	U	.5	100
Allyl chloride	107-05-1	1	ND	ug/L	U	.5	10
Benzene	71-43-2	1	ND	ug/L	U	.39	5
Bromodichloromethane	75-27-4	1	ND	ug/L	U	.64	5
Bromoform	75-25-2	1	ND	ug/L	U	.47	5
Bromomethane	74-83-9	1	ND	ug/L	U	.49	10
2-Butanone	78-93-3	1	ND	ug/L	U	1.1	100
Carbon disulfide	75-15-0	1	ND	ug/L	U	1.1	100
Carbon tetrachloride	56-23-5	1	ND	ug/L	U	1.4	5
Chlorobenzene	108-90-7	1	ND	ug/L	U	.44	5
Chloroethane	75-00-3	1	ND	ug/L	U	.54	10
Chloroform	67-66-3	1	ND	ug/L	U	1.4	5
Chloromethane	74-87-3	1	ND	ug/L	U	2	10
Dibromochloromethane	124-48-1	1	ND	ug/L	U	.5	5
1,2-Dibromo-3-chloropropane	96-12-8	1	ND	ug/L	U	.61	100
1,2-Dibromoethane	106-93-4	1	ND	ug/L	U	.5	5
Dibromomethane	74-95-3	1	ND	ug/L	U	1.4	5
trans-1,4-Dichloro-2-butene	110-57-6	1	ND	ug/L	U	5	5
Dichlorodifluoromethane	75-71-8	1	ND	ug/L	U	.43	10
1,1-Dichloroethane	75-34-3	1	ND	ug/L	U	1.7	5
1,2-Dichloroethane	107-06-2	1	ND	ug/L	U	2.1	5
1,1-Dichloroethene	75-35-4	1	ND	ug/L	U	.48	5
trans-1,2-Dichloroethene	156-60-5	1	ND	ug/L	U	.55	5
cis-1,2-Dichloroethene	156-59-2	1	ND	ug/L	U	.5	5
1,2-Dichloropropane	78-87-5	1	ND	ug/L	U	.51	5
cis-1,3-Dichloropropene	10061-01-5	1	ND	ug/L	U	.78	5
trans-1,3-Dichloropropene	10061-02-6	1	ND	ug/L	U	.55	5
1,4-Dioxane	123-91-1	1	ND	ug/L	U	100	100
Ethylbenzene	100-41-4	1	ND	ug/L	U	.75	5

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Form 1 - Data Summary Report
 Prepared By: HydroLogic Laboratories, Inc.

Client ID: CAFB-100296-TB02
 Project Number: 95-321
 Sample ID: L3410-2
 Site / Project ID: CANNON AFB, NM
 Run ID: R5087
 Collection Date: 02-OCT-96
 Received Date: 04-OCT-96
 Report Date: 15-OCT-96

Analyte	CAS No.	Dil	Sample Conc.	Units	Qual	MDL	RL
Ethyl methacrylate	97-63-2	1	ND	ug/L	U	.5	5
2-Hexanone	591-78-6	1	ND	ug/L	U	.5	100
Iodomethane	74-88-4	1	ND	ug/L	U	10	10
Methacrylonitrile	126-98-7	1	ND	ug/L	U	.5	100
Methylene chloride	75-09-2	1	ND	ug/L	U	.75	5
Methyl methacrylate	80-62-6	1	ND	ug/L	U	.5	50
4-Methyl-2-pentanone	108-10-1	1	ND	ug/L	U	.56	50
Propionitrile	107-12-0	1	ND	ug/L	U	.5	5
Styrene	100-42-5	1	ND	ug/L	U	.5	5
1,1,1,2-Tetrachloroethane	630-20-6	1	ND	ug/L	U	.45	5
1,1,2,2-Tetrachloroethane	79-34-5	1	ND	ug/L	U	.63	5
Tetrachloroethene	127-18-4	1	ND	ug/L	U	.49	5
Toluene	108-88-3	1	ND	ug/L	U	.85	5
1,1,1-Trichloroethane	71-55-6	1	ND	ug/L	U	1.7	5
1,1,2-Trichloroethane	79-00-5	1	ND	ug/L	U	1.2	5
Trichloroethene	79-01-6	1	ND	ug/L	U	.42	5
Trichlorofluoromethane	75-69-4	1	ND	ug/L	U	.5	5
1,2,3-Trichloropropane	96-18-4	1	ND	ug/L	U	1.1	5
Vinyl acetate	108-05-4	1	ND	ug/L	U	5	10
Vinyl chloride	75-01-4	1	ND	ug/L	U	.47	2
Xylene (Total)	1330-20-7	1	ND	ug/L	U	1	5
Dibromofluoromethane	SURROGATE	1	101	%			
Toluene-d8	SURROGATE	1	95	%			
4-Bromofluorobenzene	SURROGATE	1	100	%			

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Form 1 - Data Summary Report
 Prepared By: HydroLogic Laboratories, Inc.

Client ID: CAFB-100296-MWN-2
 Project Number: 95-321
 Sample ID: L3410-3
 Site / Project ID: CANNON AFB, NM
 Run ID: R5053
 Collection Date: 02-OCT-96
 Received Date: 04-OCT-96
 Report Date: 11-OCT-96

Analyte	CAS No.	Dil	Sample Conc.	Units	Qual	MDL	RL
SW846 Met. 8260 (APIX)							
Preparation Date: 14-OCT-96							
Analysis Date: 14-OCT-96 17:11							
Workgroup Number: WGB106							
Acetone	67-64-1	1	ND	ug/L	U	1.5	100
Acetonitrile	75-05-8	1	ND	ug/L	U	.5	100
Acrolein	107-02-8	1	ND	ug/L	U	.5	100
Acrylonitrile	107-13-1	1	ND	ug/L	U	.5	100
Allyl chloride	107-05-1	1	ND	ug/L	U	.5	10
Benzene	71-43-2	1	ND	ug/L	U	.39	5
Bromodichloromethane	75-27-4	1	ND	ug/L	U	.64	5
Bromoform	75-25-2	1	ND	ug/L	U	.47	5
Bromomethane	74-83-9	1	ND	ug/L	U	.49	10
2-Butanone	78-93-3	1	ND	ug/L	U	1.1	100
Carbon disulfide	75-15-0	1	ND	ug/L	U	1.1	100
Carbon tetrachloride	56-23-5	1	ND	ug/L	U	1.4	5
Chlorobenzene	108-90-7	1	ND	ug/L	U	.44	5
Chloroethane	75-00-3	1	ND	ug/L	U	.54	10
Chloroform	67-66-3	1	ND	ug/L	U	1.4	5
Chloromethane	74-87-3	1	ND	ug/L	U	2	10
Dibromochloromethane	124-48-1	1	ND	ug/L	U	.5	5
1,2-Dibromo-3-chloropropane	96-12-8	1	ND	ug/L	U	.61	100
1,2-Dibromoethane	106-93-4	1	ND	ug/L	U	.5	5
Dibromomethane	74-95-3	1	ND	ug/L	U	1.4	5
trans-1,4-Dichloro-2-butene	110-57-6	1	ND	ug/L	U	5	5
Dichlorodifluoromethane	75-71-8	1	ND	ug/L	U	.43	10
1,1-Dichloroethane	75-34-3	1	ND	ug/L	U	1.7	5
1,2-Dichloroethane	107-06-2	1	ND	ug/L	U	2.1	5
1,1-Dichloroethene	75-35-4	1	ND	ug/L	U	.48	5
trans-1,2-Dichloroethene	156-60-5	1	ND	ug/L	U	.55	5
cis-1,2-Dichloroethene	156-59-2	1	ND	ug/L	U	.5	5
1,2-Dichloropropane	78-87-5	1	ND	ug/L	U	.51	5
cis-1,3-Dichloropropene	10061-01-5	1	ND	ug/L	U	.78	5
trans-1,3-Dichloropropene	10061-02-6	1	ND	ug/L	U	.55	5
1,4-Dioxane	123-91-1	1	ND	ug/L	U	100	100
Ethylbenzene	100-41-4	1	ND	ug/L	U	.75	5

Review By: Bob Cathel

Report Approved By: Karen Kuoppala

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 - E = Analyte Conc. is above the Method Calibration Range
- Dil - Sample Dilution Factor
- ND - Sample Concentration Not Detected above MDL
- MDL - Method Detection Limit
- RL - Method Reporting Limit

Form 1 - Data Summary Report
 Prepared By: HydroLogic Laboratories, Inc.

Client ID: CAFB-100296-MWN-2
 Project Number: 95-321
 Sample ID: L3410-3
 Site / Project ID: CANNON AFB, NM
 Run ID: R5053
 Collection Date: 02-OCT-96
 Received Date: 04-OCT-96
 Report Date: 11-OCT-96

Analyte	CAS No.	Dil	Sample Conc.	Units	Qual	MDL	RL
Ethyl methacrylate	97-63-2	1	ND	ug/L	U	.5	5
2-Hexanone	591-78-6	1	ND	ug/L	U	.5	100
Iodomethane	74-88-4	1	ND	ug/L	U	10	10
Methacrylonitrile	126-98-7	1	ND	ug/L	U	.5	100
Methylene chloride	75-09-2	1	ND	ug/L	U	.75	5
Methyl methacrylate	80-62-6	1	ND	ug/L	U	.5	50
4-Methyl-2-pentanone	108-10-1	1	ND	ug/L	U	.56	50
Propionitrile	107-12-0	1	ND	ug/L	U	.5	5
Styrene	100-42-5	1	ND	ug/L	U	.5	5
1,1,1,2-Tetrachloroethane	630-20-6	1	ND	ug/L	U	.45	5
1,1,2,2-Tetrachloroethane	79-34-5	1	ND	ug/L	U	.63	5
Tetrachloroethene	127-18-4	1	ND	ug/L	U	.49	5
Toluene	108-88-3	1	ND	ug/L	U	.85	5
1,1,1-Trichloroethane	71-55-6	1	ND	ug/L	U	1.7	5
1,1,2-Trichloroethane	79-00-5	1	ND	ug/L	U	1.2	5
Trichloroethene	79-01-6	1	ND	ug/L	U	.42	5
Trichlorofluoromethane	75-69-4	1	ND	ug/L	U	.5	5
1,2,3-Trichloropropane	96-18-4	1	ND	ug/L	U	1.1	5
Vinyl acetate	108-05-4	1	ND	ug/L	U	5	10
Vinyl chloride	75-01-4	1	ND	ug/L	U	.47	2
Xylene (Total)	1330-20-7	1	ND	ug/L	U	1	5
Dibromofluoromethane	SURROGATE	1	104	%			
Toluene-d8	SURROGATE	1	94	%			
4-Bromofluorobenzene	SURROGATE	1	98	%			

Review By: Bob Cathel

Report Approved By: Karen Kuoppala

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- RL - Method Reporting Limit

Form 1 - Data Summary Report
 Prepared By: HydroLogic Laboratories, Inc.

Client ID: CAFB-100296-MWN-2
 Project Number: 95-321
 Sample ID: L3410-3
 Site / Project ID: CANNON AFB, NM
 Run ID: R5053
 Collection Date: 02-OCT-96
 Received Date: 04-OCT-96
 Report Date: 11-OCT-96

Analyte	CAS No.	Dil	Sample Conc.	Units	Qual	MDL	RL
SW846 Met. 8270 (APIX)							
Preparation Date: 09-OCT-96							
Analysis Date: 22-OCT-96 18:43							
Workgroup Number: WG8060							
Acenaphthene	83-32-9	1	ND	ug/L	U	4.2	5
Acenaphthylene	208-96-8	1	ND	ug/L	U	3.5	5
Acetophenone	98-86-2	1	ND	ug/L	U	2.9	5
2-Acetylaminofluorene	53-96-3	1	ND	ug/L	U	100	100
4-Aminobiphenyl	92-67-1	1	ND	ug/L	U	3.3	10
Aniline	62-53-3	1	ND	ug/L	U	2.4	5
Anthracene	120-12-7	1	ND	ug/L	U	2.6	5
Aramite	140-57-8	1	ND	ug/L	U	10	10
Benz(a)anthracene	56-55-3	1	ND	ug/L	U	2.8	5
Benzo(b)fluoranthene	205-99-2	1	ND	ug/L	U	2.6	5
Benzo(k)fluoranthene	207-08-9	1	ND	ug/L	U	3.9	5
Benzo(g,h,i)perylene	191-24-2	1	ND	ug/L	U	3.1	5
Benzo(a)pyrene	50-32-8	1	ND	ug/L	U	3.5	5
Benzyl alcohol	100-51-6	1	ND	ug/L	U	2.4	5
4-Bromophenyl phenyl ether	101-55-3	1	ND	ug/L	U	2.6	5
Butyl benzyl phthalate	85-68-7	1	ND	ug/L	U	2.7	5
2-sec-Butyl-4,6-dinitrophenol	88-85-7	1	ND	ug/L	U	10	10
4-Chloroaniline	106-47-8	1	ND	ug/L	U	3.8	5
Bis(2-chloroethoxy)methane	111-91-1	1	ND	ug/L	U	2.9	5
Bis(2-chloroethyl) ether	111-44-4	1	ND	ug/L	U	2.1	5
Bis(2-chloroisopropyl) ether	108-60-1	1	ND	ug/L	U	1.9	5
4-Chloro-3-methylphenol	59-50-7	1	ND	ug/L	U	3.2	5
2-Chloronaphthalene	91-58-7	1	ND	ug/L	U	4.2	5
2-Chlorophenol	95-57-8	1	ND	ug/L	U	2.9	5
4-Chlorophenyl phenyl ether	7005-72-3	1	ND	ug/L	U	3.9	5
Chrysene	218-01-9	1	ND	ug/L	U	4.2	5
Dibenz(a,h)anthracene	53-70-3	1	ND	ug/L	U	3.4	5
Dibenzofuran	132-64-9	1	ND	ug/L	U	4	5
1,3-Dichlorobenzene	541-73-1	1	ND	ug/L	U	3	5
1,4-Dichlorobenzene	106-46-7	1	ND	ug/L	U	2.9	5
1,2-Dichlorobenzene	95-50-1	1	ND	ug/L	U	2.6	5
Di-n-butyl phthalate	84-74-2	1	ND	ug/L	U	5.2	20

Review By: Bob Cathel

Report Approved By: Karen Kuoppala

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Form 1 - Data Summary Report
 Prepared By: HydroLogic Laboratories, Inc.

Client ID: CAFB-100296-MWN-2
 Project Number: 95-321
 Sample ID: L3410-3
 Site / Project ID: CANNON AFB, NM
 Run ID: R5053
 Collection Date: 02-OCT-96
 Received Date: 04-OCT-96
 Report Date: 11-OCT-96

Analyte	CAS No.	Dil	Sample Conc.	Units	Qual	MDL	RL
3,3'-Dichlorobenzidine	91-94-1	1	ND	ug/L	U	3.6	10
2,4-Dichlorophenol	120-83-2	1	ND	ug/L	U	4.4	5
2,6-Dichlorophenol	87-65-0	1	ND	ug/L	U	4.4	5
Diethyl phthalate	84-66-2	1	ND	ug/L	U	5.1	10
p-Dimethylaminoazobenzene	60-11-7	1	ND	ug/L	U	2.5	5
7,12-Dimethylbenz(a)anthracene	57-97-6	1	ND	ug/L	U	3.4	5
3,3'-Dimethylbenzidine	119-93-7	1	ND	ug/L	U	5	10
a,a-Dimethylphenethylamine	122-09-8	1	ND	ug/L	U	4.5	100
2,4-Dimethylphenol	105-67-9	1	ND	ug/L	U	3.2	5
Dimethyl phthalate	131-11-3	1	ND	ug/L	U	4.8	5
1,3-Dinitrobenzene	99-65-0	1	ND	ug/L	U	5	10
4,6-Dinitro-2-methylphenol	534-52-1	1	ND	ug/L	U	4.3	25
2,4-Dinitrophenol	51-28-5	1	ND	ug/L	U	6.9	25
2,4-Dinitrotoluene	121-14-2	1	ND	ug/L	U	2.9	5
2,6-Dinitrotoluene	606-20-2	1	ND	ug/L	U	3.8	5
Di-n-octyl phthalate	117-84-0	1	ND	ug/L	U	2.7	5
Diphenylamine	122-39-4	1	ND	ug/L	U	4.2	10
bis(2-ethylhexyl) phthalate	117-81-7	1	ND	ug/L	UB	3.6	5
Ethyl methanesulfonate	62-50-0	1	ND	ug/L	U	2.6	10
Fluoranthene	206-44-0	1	ND	ug/L	U	4	5
Fluorene	86-73-7	1	ND	ug/L	U	3.3	5
Hexachlorobenzene	118-74-1	1	ND	ug/L	U	2.5	5
Hexachlorobutadiene	87-68-3	1	ND	ug/L	U	3	5
Hexachlorocyclopentadiene	77-47-4	1	ND	ug/L	U	2.2	5
Hexachloroethane	67-72-1	1	ND	ug/L	U	4.7	5
Hexachloropropene	1888-71-7	1	ND	ug/L	U	5	5
Hexachlorophene	70-30-4	1	ND	ug/L	U	100	100
Indeno(1,2,3-cd)pyrene	193-39-5	1	ND	ug/L	U	3.1	5
Isophorone	78-59-1	1	ND	ug/L	U	3	5
Isosafrole	120-58-1	1	ND	ug/L	U	20	20
Methapyrilene	91-80-5	1	ND	ug/L	U	10	10
3-Methylcholanthrene	56-49-5	1	ND	ug/L	U	2.7	5
Methyl methanesulfonate	66-27-3	1	ND	ug/L	U	2.9	5
2-Methylnaphthalene	91-57-6	1	ND	ug/L	U	2.8	5
2-Methylphenol	95-48-7	1	ND	ug/L	U	1.9	5
3&4-Methylphenol	NA	1	ND	ug/L	U	2	5

Review By: Bob Cathel

Report Approved By: Karen Kuoppala

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- RL - Method Reporting Limit

Form 1 - Data Summary Report
 Prepared By: HydroLogic Laboratories, Inc.

Client ID: CAFB-100296-MWN-2
 Project Number: 95-321
 Sample ID: L3410-3
 Site / Project ID: CANNON AFB, NM
 Run ID: R5053
 Collection Date: 02-OCT-96
 Received Date: 04-OCT-96
 Report Date: 11-OCT-96

Analyte	CAS No.	Dil	Sample Conc.	Units	Qual	MDL	RL
Naphthalene	91-20-3	1	ND	ug/L	U	2.4	5
1,4-Naphthoquinone	130-15-4	1	ND	ug/L	U	10	10
1-Naphthylamine	134-32-7	1	ND	ug/L	U	3.8	5
2-Naphthylamine	91-59-8	1	ND	ug/L	U	3.9	5
2-Nitroaniline	88-74-4	1	ND	ug/L	U	3.7	25
3-Nitroaniline	99-09-2	1	ND	ug/L	U	3.4	25
4-Nitroaniline	100-01-6	1	ND	ug/L	U	6.4	25
Nitrobenzene	98-95-3	1	ND	ug/L	U	4.7	5
2-Nitrophenol	88-75-5	1	ND	ug/L	U	4.3	5
4-Nitrophenol	100-02-7	1	ND	ug/L	U	8.4	25
N-Nitroso-di-n-butylamine	924-16-3	1	ND	ug/L	U	3	5
N-Nitrosodiethylamine	55-18-5	1	ND	ug/L	U	10	10
N-Nitrosodimethylamine	62-75-9	1	ND	ug/L	U	2	10
N-Nitrosodiphenylamine	86-30-6	1	ND	ug/L	U	5.2	25
N-Nitrosodipropylamine	621-64-7	1	ND	ug/L	U	3.1	5
N-Nitrosomethylethylamine	10595-95-6	1	ND	ug/L	U	10	10
N-Nitrosomorpholine	59-89-2	1	ND	ug/L	U	10	10
N-Nitrosopiperidine	100-75-4	1	ND	ug/L	U	3.4	10
N-Nitrosopyrrolidine	930-55-2	1	ND	ug/L	U	10	10
5-Nitro-o-toluidine	99-55-8	1	ND	ug/L	U	10	10
4-Nitroquinoline-n-oxide	56-57-5	1	ND	ug/L	U	100	100
Pentachlorobenzene	608-93-5	1	ND	ug/L	U	3.9	5
Pentachloroethane	76-01-7	1	ND	ug/L	U	10	10
Pentachloronitrobenzene	82-68-8	1	ND	ug/L	U	4.7	10
Pentachlorophenol	87-86-5	1	ND	ug/L	U	5.7	25
Phenacetin	62-44-2	1	ND	ug/L	U	5.9	25
Phenanthrene	85-01-8	1	ND	ug/L	U	2.5	5
Phenol	108-95-2	1	ND	ug/L	U	3.4	5
p-Phenylenediamine	106-50-3	1	ND	ug/L	U	100	100
2-Picoline	109-06-8	1	ND	ug/L	U	3.6	5
Pronamide	23950-58-5	1	ND	ug/L	U	3.8	5
Pyrene	129-00-0	1	ND	ug/L	U	3.5	5
Pyridine	110-86-1	1	ND	ug/L	U	10	10
Safrole	94-59-7	1	ND	ug/L	U	10	10
1,2,4,5-Tetrachlorobenzene	95-94-3	1	ND	ug/L	U	5.1	10
2,3,4,6-Tetrachlorophenol	58-90-2	1	ND	ug/L	U	4.5	5

Review By: Bob Cathel

Report Approved By: Karen Kuoppala

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- Dil - Sample Dilution Factor
- ND - Sample Concentration Not Detected above MDL
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- RL - Method Reporting Limit

Form 1 - Data Summary Report
 Prepared By: HydroLogic Laboratories, Inc.

Client ID: CAFB-100296-MWN-2
 Project Number: 95-321
 Sample ID: L3410-3
 Site / Project ID: CANNON AFB, NM
 Run ID: R5053
 Collection Date: 02-OCT-96
 Received Date: 04-OCT-96
 Report Date: 11-OCT-96

Analyte	CAS No.	Dil	Sample Conc.	Units	Qual	MDL	RL
o-Toluidine	95-53-4	1	ND	ug/L	U	10	10
1,2,4-Trichlorobenzene	120-82-1	1	ND	ug/L	U	3.2	5
2,4,5-Trichlorophenol	95-95-4	1	ND	ug/L	U	5.6	25
2,4,6-Trichlorophenol	88-06-2	1	ND	ug/L	U	4.4	5
1,3,5-Trinitrobenzene	99-35-4	1	ND	ug/L	U	10	10
Nitrobenzene-d5	SURROGATE	1	70	%			
2-Fluorobiphenyl	SURROGATE	1	68	%			
p-Terphenyl-d14	SURROGATE	1	96	%			
Phenol-d6	SURROGATE	1	73	%			
2-Fluorophenol	SURROGATE	1	60	%			
2,4,6-Tribromophenol	SURROGATE	1	76	%			

Review By: Bob Cathel

Report Approved By: Karen Kuoppala

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Form 1 - Data Summary Report
 Prepared By: HydroLogic Laboratories, Inc.

Client ID: CAFB-100296-MWN-2
 Project Number: 95-321
 Sample ID: L3410-3
 Site / Project ID: CANNON AFB, NM
 Run ID: R5053
 Collection Date: 02-OCT-96
 Received Date: 04-OCT-96
 Report Date: 11-OCT-96

Analyte	CAS No.	Dil	Sample Conc.	Units	Qual	MDL	RL
SW846 Methods 3520/8080							
Preparation Date: 08-OCT-96							
Analysis Date: 11-OCT-96 01:59							
Workgroup Number: WG8029							
Aldrin	309-00-2	1	ND	ug/L	U	.05	.05
alpha-BHC	319-84-6	1	ND	ug/L	U	.018	.05
beta-BHC	319-85-7	1	ND	ug/L	U	.015	.05
delta-BHC	319-86-8	1	ND	ug/L	U	.011	.05
gamma-BHC (Lindane)	58-89-9	1	ND	ug/L	U	.013	.05
alpha-Chlordane	5103-71-9	1	ND	ug/L	J	.01	.05
gamma-Chlordane	5103-74-2	1	ND	ug/L	J	.01	.05
Chlorobenzilate	510-15-6	1	ND	ug/L	U	.05	.1
4,4'-DDD	72-54-8	1	ND	ug/L	U	.078	.1
4,4'-DDE	72-55-9	1	ND	ug/L	U	.017	.1
4,4'-DDT	50-29-3	1	ND	ug/L	U	.031	.1
Diallate	60-57-1	1	ND	ug/L	U	.5	1
Dieldrin	60-57-1	1	ND	ug/L	U	.012	.1
Endosulfan I	959-98-8	1	ND	ug/L	U	.015	.05
Endosulfan II	33213-65-9	1	ND	ug/L	U	.013	.1
Endosulfan sulfate	1031-07-8	1	ND	ug/L	U	.018	.1
Endrin	72-20-8	1	ND	ug/L	U	.013	.1
Endrin aldehyde	7421-93-4	1	ND	ug/L	U	.081	.1
Heptachlor	76-44-8	1	ND	ug/L	U	.036	.05
Heptachlor epoxide	1024-57-3	1	ND	ug/L	U	.014	.05
Isodrin	465-73-6	1	ND	ug/L	U	.05	.1
Kepone	143-50-0	1	ND	ug/L	U	.5	1
Methoxychlor	72-43-5	1	ND	ug/L	U	.049	.5
Toxaphene	8001-35-2	1	ND	ug/L	U	.24	2.4
Aroclor-1016	12674-11-2	1	ND	ug/L	U	.18	.5
Aroclor-1221	11104-28-2	1	ND	ug/L	U	.11	.5
Aroclor-1232	11141-16-5	1	ND	ug/L	U	.11	.5
Aroclor-1242	53469-21-9	1	ND	ug/L	U	.11	.5
Aroclor-1248	12672-29-6	1	ND	ug/L	U	.11	.5
Aroclor-1254	11097-69-1	1	ND	ug/L	U	.11	1
Aroclor-1260	11096-82-5	1	ND	ug/L	U	.11	1
Tetrachloro-m-xylene	SURROGATE	1	78	%			

Review By: Bob Cathel

Report Approved By: Karen Kuoppala

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Form 1 - Data Summary Report
 Prepared By: HydroLogic Laboratories, Inc.

Client ID: CAFB-100296-MWN-2
 Project Number: 95-321
 Sample ID: L3410-3
 Site / Project ID: CANNON AFB, NM
 Run ID: R5053
 Collection Date: 02-OCT-96
 Received Date: 04-OCT-96
 Report Date: 11-OCT-96

Analyte	CAS No.	Dil	Sample Conc.	Units	Qual	MDL	RL
Decachlorobiphenyl	SURROGATE	1	105	%			
SW846 Met. 8150 (APIX)							
Preparation Date: 08-OCT-96							
Analysis Date: 14-OCT-96 23:02							
Workgroup Number: WG8030							
2,4-D	94-75-7	1	ND	ug/L	U	1	1
2,4,5-T	93-76-5	1	ND	ug/L	U	.1	.1
2,4,5-TP (Silvex)	93-72-1	1	ND	ug/L	U	.1	.1
DCAA	SURROGATE	1	74	%			

Review By: Bob Cathel

Report Approved By: Karen Kuoppala

- Qual - U = Analyte Not Detected above the Method Detection Limit
 - J = Estimated Concentration, B = Analyte Detected in the Blank
 - E = Analyte Conc. is above the Method Calibration Range
- Dil - Sample Dilution Factor
- ND - Sample Concentration Not Detected above MDL
- MDL - Method Detection Limit
- RL - Method Reporting Limit

Form 1 - Data Summary Report
 Prepared By: HydroLogic Laboratories, Inc.

Client ID: CAFB-100296-MWN-2
 Project Number: 95-321
 Sample ID: L3410-3
 Site / Project ID: CANNON AFB, NM
 Run ID: R5053
 Collection Date: 02-OCT-96
 Received Date: 04-OCT-96
 Report Date: 11-OCT-96

Analyte	CAS No.	Dil	Sample Conc.	Units	Qual	MDL	RL
SW846 Met. 6010 (APIX)							
Preparation Date: 09-OCT-96							
Analysis Date: 10-OCT-96 09:39							
Workgroup Number: WG8041							
Barium	7440-39-3	1	.0652	mg/L		.00026	.02
Beryllium	7440-41-7	1	ND	mg/L	U	.00016	.004
Cadmium	7440-43-9	1	ND	mg/L	U	.0019	.005
Chromium	7440-47-3	1	ND	mg/L	U	.0045	.01
Cobalt	7440-48-4	1	ND	mg/L	U	.0053	.05
Copper	7440-50-8	1	ND	mg/L	U	.0073	.01
Nickel	7440-02-0	1	ND	mg/L	U	.0056	.02
Silver	7440-22-4	1	ND	mg/L	U	.0019	.01
Vanadium	7440-62-2	1	.012	mg/L	J	.0017	.05
Zinc	7440-66-6	1	.0464	mg/L		.0052	.02

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Form 1 - Data Summary Report
 Prepared By: HydroLogic Laboratories, Inc.

Client ID: CAFB-100296-MWN-2
 Project Number: 95-321
 Sample ID: L3410-3
 Site / Project ID: CANNON AFB, NM
 Run ID: R5053
 Collection Date: 02-OCT-96
 Received Date: 04-OCT-96
 Report Date: 11-OCT-96

Analyte	CAS No.	Dil	Sample Conc.	Units	Qual	MDL	RL
SW846 Method 7060 Analysis Date: 10-OCT-96 13:03 Workgroup Number: WG8044							
Arsenic	7440-38-2	1	ND	mg/L	U	.00073	.005
SW846 Method 7421 Analysis Date: 10-OCT-96 11:57 Workgroup Number: WG8043							
Lead	7439-92-1	1	ND	mg/L	U	.00089	.003
SW846 Method 7041 Analysis Date: 14-OCT-96 16:03 Workgroup Number: WG8042							
Antimony	7440-36-0	1	ND	mg/L	U	.00068	.006
SW846 Method 7740 Analysis Date: 10-OCT-96 10:42 Workgroup Number: WG8045							
Selenium	7782-49-2	1	.0088	mg/L		.00074	.005
SW846 Method 7841 Analysis Date: 10-OCT-96 13:43 Workgroup Number: WG8046							
Thallium	7440-26-0	1	ND	mg/L	U	.00079	.01
SW846 Method 7470 Analysis Date: 10-OCT-96 15:44 Workgroup Number: WG8078							
Mercury	7439-97-6	1	ND	mg/L	U	.00005	.0002

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Form 1 - Data Summary Report
 Prepared By: HydroLogic Laboratories, Inc.

Client ID: CAFB-100296-MWN-2
 Project Number: 95-321
 Sample ID: L3410-3
 Site / Project ID: CANNON AFB, NM
 Run ID: R5053
 Collection Date: 02-OCT-96
 Received Date: 04-OCT-96
 Report Date: 11-OCT-96

Analyte	CAS No.	Dil	Sample Conc.	Units	Qual	MDL	RL
SW846 Method 9012							
Analysis Date: 17-OCT-96 09:06							
Workgroup Number: WG8168							
Cyanide (tot.)	N/A	1	ND	mg/L	U	.018	.1
Cyanide (amen.)	N/A	1	ND	mg/L	U	.005	.02
SW-846, Method 9030							
Preparation Date: 08-OCT-96							
Analysis Date: 08-OCT-96 08:04							
Workgroup Number: WG8032							
Sulfide	N/A	1	ND	mg/L	U	.48	1
SW-846, Method 9060							
Analysis Date: 08-OCT-96 10:35							
Workgroup Number: WG8034							
Total Organic Carbon	N/A	1	3.2	mg/L		.15	1
SW-846, Method 9020							
Analysis Date: 09-OCT-96 12:16							
Workgroup Number: WG8099							
Total Organic Halides	N/A	1	.0205	mg/L		.001	.005

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Form 1 - Data Summary Report
 Prepared By: HydroLogic Laboratories, Inc.

Client ID: CAFB-100296-TB03
 Project Number: 95-321
 Sample ID: L3410-4
 Site / Project ID: CANNON AFB, NM
 Run ID: R5087
 Collection Date: 02-OCT-96
 Received Date: 04-OCT-96
 Report Date: 15-OCT-96

Analyte	CAS No.	Dil	Sample Conc.	Units	Qual	MDL	RL
SW846 Met. 8260 (APIX)							
Preparation Date: 14-OCT-96							
Analysis Date: 14-OCT-96 17:51							
Workgroup Number: WG8106							
Acetone	67-64-1	1	ND	ug/L	U	1.5	100
Acetonitrile	75-05-8	1	ND	ug/L	U	.5	100
Acrolein	107-02-8	1	ND	ug/L	U	.5	100
Acrylonitrile	107-13-1	1	ND	ug/L	U	.5	100
Allyl chloride	107-05-1	1	ND	ug/L	U	.5	10
Benzene	71-43-2	1	ND	ug/L	U	.39	5
Bromodichloromethane	75-27-4	1	ND	ug/L	U	.64	5
Bromoform	75-25-2	1	ND	ug/L	U	.47	5
Bromomethane	74-83-9	1	ND	ug/L	U	.49	10
2-Butanone	78-93-3	1	ND	ug/L	U	1.1	100
Carbon disulfide	75-15-0	1	ND	ug/L	U	1.1	100
Carbon tetrachloride	56-23-5	1	ND	ug/L	U	1.4	5
Chlorobenzene	108-90-7	1	ND	ug/L	U	.44	5
Chloroethane	75-00-3	1	ND	ug/L	U	.54	10
Chloroform	67-66-3	1	ND	ug/L	U	1.4	5
Chloromethane	74-87-3	1	ND	ug/L	U	2	10
Dibromochloromethane	124-48-1	1	ND	ug/L	U	.5	5
1,2-Dibromo-3-chloropropane	96-12-8	1	ND	ug/L	U	.61	100
1,2-Dibromoethane	106-93-4	1	ND	ug/L	U	.5	5
Dibromomethane	74-95-3	1	ND	ug/L	U	1.4	5
trans-1,4-Dichloro-2-butene	110-57-6	1	ND	ug/L	U	5	5
Dichlorodifluoromethane	75-71-8	1	ND	ug/L	U	.43	10
1,1-Dichloroethane	75-34-3	1	ND	ug/L	U	1.7	5
1,2-Dichloroethane	107-06-2	1	ND	ug/L	U	2.1	5
1,1-Dichloroethene	75-35-4	1	ND	ug/L	U	.48	5
trans-1,2-Dichloroethene	156-60-5	1	ND	ug/L	U	.55	5
cis-1,2-Dichloroethene	156-59-2	1	ND	ug/L	U	.5	5
1,2-Dichloropropane	78-87-5	1	ND	ug/L	U	.51	5
cis-1,3-Dichloropropene	10061-01-5	1	ND	ug/L	U	.78	5
trans-1,3-Dichloropropene	10061-02-6	1	ND	ug/L	U	.55	5
1,4-Dioxane	123-91-1	1	ND	ug/L	U	100	100
Ethylbenzene	100-41-4	1	ND	ug/L	U	.75	5

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Form 1 - Data Summary Report
 Prepared By: HydroLogic Laboratories, Inc.

Client ID: CAFB-100296-TB03
 Project Number: 95-321
 Sample ID: L3410-4
 Site / Project ID: CANNON AFB, NM
 Run ID: R5087
 Collection Date: 02-OCT-96
 Received Date: 04-OCT-96
 Report Date: 15-OCT-96

Analyte	CAS No.	Dil	Sample Conc.	Units	Qual	MDL	RL
Ethyl methacrylate	97-63-2	1	ND	ug/L	U	.5	5
2-Hexanone	591-78-6	1	ND	ug/L	U	.5	100
Iodomethane	74-88-4	1	ND	ug/L	U	10	10
Methacrylonitrile	126-98-7	1	ND	ug/L	U	.5	100
Methylene chloride	75-09-2	1	ND	ug/L	U	.75	5
Methyl methacrylate	80-62-6	1	ND	ug/L	U	.5	50
4-Methyl-2-pentanone	108-10-1	1	ND	ug/L	U	.56	50
Propionitrile	107-12-0	1	ND	ug/L	U	.5	5
Styrene	100-42-5	1	ND	ug/L	U	.5	5
1,1,1,2-Tetrachloroethane	630-20-6	1	ND	ug/L	U	.45	5
1,1,2,2-Tetrachloroethane	79-34-5	1	ND	ug/L	U	.63	5
Tetrachloroethene	127-18-4	1	ND	ug/L	U	.49	5
Toluene	108-88-3	1	ND	ug/L	U	.85	5
1,1,1-Trichloroethane	71-55-6	1	ND	ug/L	U	1.7	5
1,1,2-Trichloroethane	79-00-5	1	ND	ug/L	U	1.2	5
Trichloroethene	79-01-6	1	ND	ug/L	U	.42	5
Trichlorofluoromethane	75-69-4	1	ND	ug/L	U	.5	5
1,2,3-Trichloropropane	96-18-4	1	ND	ug/L	U	1.1	5
Vinyl acetate	108-05-4	1	ND	ug/L	U	5	10
Vinyl chloride	75-01-4	1	ND	ug/L	U	.47	2
Xylene (Total)	1330-20-7	1	ND	ug/L	U	1	5
Dibromofluoromethane	SURROGATE	1	103	%			
Toluene-d8	SURROGATE	1	93	%			
4-Bromofluorobenzene	SURROGATE	1	104	%			

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Form 1 - Data Summary Report
 Prepared By: HydroLogic Laboratories, Inc.

Client ID: CAFB-100296-MWO-1
 Project Number: 95-321
 Sample ID: L3410-5
 Site / Project ID: CANNON AFB, NM
 Run ID: R5053
 Collection Date: 02-OCT-96
 Received Date: 04-OCT-96
 Report Date: 11-OCT-96

Analyte	CAS No.	Dil	Sample Conc.	Units	Qual	MDL	RL
SW846 Met. 8260 (APIX)							
Preparation Date: 14-OCT-96							
Analysis Date: 14-OCT-96 18:31							
Workgroup Number: WGB106							
Acetone	67-64-1	1	ND	ug/L	U	1.5	100
Acetonitrile	75-05-8	1	ND	ug/L	U	.5	100
Acrolein	107-02-8	1	ND	ug/L	U	.5	100
Acrylonitrile	107-13-1	1	ND	ug/L	U	.5	100
Allyl chloride	107-05-1	1	ND	ug/L	U	.5	10
Benzene	71-43-2	1	ND	ug/L	U	.39	5
Bromodichloromethane	75-27-4	1	ND	ug/L	U	.64	5
Bromoform	75-25-2	1	ND	ug/L	U	.47	5
Bromomethane	74-83-9	1	ND	ug/L	U	.49	10
2-Butanone	78-93-3	1	ND	ug/L	U	1.1	100
Carbon disulfide	75-15-0	1	ND	ug/L	U	1.1	100
Carbon tetrachloride	56-23-5	1	ND	ug/L	U	1.4	5
Chlorobenzene	108-90-7	1	ND	ug/L	U	.44	5
Chloroethane	75-00-3	1	ND	ug/L	U	.54	10
Chloroform	67-66-3	1	ND	ug/L	U	1.4	5
Chloromethane	74-87-3	1	ND	ug/L	U	2	10
Dibromochloromethane	124-48-1	1	ND	ug/L	U	.5	5
1,2-Dibromo-3-chloropropane	96-12-8	1	ND	ug/L	U	.61	100
1,2-Dibromoethane	106-93-4	1	ND	ug/L	U	.5	5
Dibromomethane	74-95-3	1	ND	ug/L	U	1.4	5
trans-1,4-Dichloro-2-butene	110-57-6	1	ND	ug/L	U	5	5
Dichlorodifluoromethane	75-71-8	1	ND	ug/L	U	.43	10
1,1-Dichloroethane	75-34-3	1	ND	ug/L	U	1.7	5
1,2-Dichloroethane	107-06-2	1	ND	ug/L	U	2.1	5
1,1-Dichloroethene	75-35-4	1	ND	ug/L	U	.48	5
trans-1,2-Dichloroethene	156-60-5	1	ND	ug/L	U	.55	5
cis-1,2-Dichloroethene	156-59-2	1	ND	ug/L	U	.5	5
1,2-Dichloropropane	78-87-5	1	ND	ug/L	U	.51	5
cis-1,3-Dichloropropene	10061-01-5	1	ND	ug/L	U	.78	5
trans-1,3-Dichloropropene	10061-02-6	1	ND	ug/L	U	.55	5
1,4-Dioxane	123-91-1	1	ND	ug/L	U	100	100
Ethylbenzene	100-41-4	1	ND	ug/L	U	.75	5

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Form 1 - Data Summary Report
 Prepared By: HydroLogic Laboratories, Inc.

Client ID: CAFB-100296-MWO-1
 Project Number: 95-321
 Sample ID: L3410-5
 Site / Project ID: CANNON AFB, NM
 Run ID: R5053
 Collection Date: 02-OCT-96
 Received Date: 04-OCT-96
 Report Date: 11-OCT-96

Analyte	CAS No.	Dil	Sample Conc.	Units	Qual	MDL	RL
Ethyl methacrylate	97-63-2	1	ND	ug/L	U	.5	5
2-Hexanone	591-78-6	1	ND	ug/L	U	.5	100
Iodomethane	74-88-4	1	ND	ug/L	U	10	10
Methacrylonitrile	126-98-7	1	ND	ug/L	U	.5	100
Methylene chloride	75-09-2	1	ND	ug/L	U	.75	5
Methyl methacrylate	80-62-6	1	ND	ug/L	U	.5	50
4-Methyl-2-pentanone	108-10-1	1	ND	ug/L	U	.56	50
Propionitrile	107-12-0	1	ND	ug/L	U	.5	5
Styrene	100-42-5	1	ND	ug/L	U	.5	5
1,1,1,2-Tetrachloroethane	630-20-6	1	ND	ug/L	U	.45	5
1,1,2,2-Tetrachloroethane	79-34-5	1	ND	ug/L	U	.63	5
Tetrachloroethene	127-18-4	1	ND	ug/L	U	.49	5
Toluene	108-88-3	1	ND	ug/L	U	.85	5
1,1,1-Trichloroethane	71-55-6	1	ND	ug/L	U	1.7	5
1,1,2-Trichloroethane	79-00-5	1	ND	ug/L	U	1.2	5
Trichloroethene	79-01-6	1	ND	ug/L	U	.42	5
Trichlorofluoromethane	75-69-4	1	ND	ug/L	U	.5	5
1,2,3-Trichloropropane	96-18-4	1	ND	ug/L	U	1.1	5
Vinyl acetate	108-05-4	1	ND	ug/L	U	5	10
Vinyl chloride	75-01-4	1	ND	ug/L	U	.47	2
Xylene (Total)	1330-20-7	1	ND	ug/L	U	1	5
Dibromofluoromethane	SURROGATE	1	103	%			
Toluene-d8	SURROGATE	1	94	%			
4-Bromofluorobenzene	SURROGATE	1	103	%			

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Form 1 - Data Summary Report
 Prepared By: HydroLogic Laboratories, Inc.

Client ID: CAFB-100296-MWO-1
 Project Number: 95-321
 Sample ID: L3410-5
 Site / Project ID: CANNON AFB,NM
 Run ID: R5053
 Collection Date: 02-OCT-96
 Received Date: 04-OCT-96
 Report Date: 11-OCT-96

Analyte	CAS No.	Dil	Sample Conc.	Units	Qual	MDL	RL
SW846 Met. 8270 (APIX)							
Preparation Date: 09-OCT-96							
Analysis Date: 22-OCT-96 19:28							
Workgroup Number: WG8060							
Acenaphthene	83-32-9	1	ND	ug/L	U	4.2	5
Acenaphthylene	208-96-8	1	ND	ug/L	U	3.5	5
Acetophenone	98-86-2	1	ND	ug/L	U	2.9	5
2-Acetylaminofluorene	53-96-3	1	ND	ug/L	U	100	100
4-Aminobiphenyl	92-67-1	1	ND	ug/L	U	3.3	10
Aniline	62-53-3	1	ND	ug/L	U	2.4	5
Anthracene	120-12-7	1	ND	ug/L	U	2.6	5
Aramite	140-57-8	1	ND	ug/L	U	10	10
Benz(a)anthracene	56-55-3	1	ND	ug/L	U	2.8	5
Benzo(b)fluoranthene	205-99-2	1	ND	ug/L	U	2.6	5
Benzo(k)fluoranthene	207-08-9	1	ND	ug/L	U	3.9	5
Benzo(g,h,i)perylene	191-24-2	1	ND	ug/L	U	3.1	5
Benzo(a)pyrene	50-32-8	1	ND	ug/L	U	3.5	5
Benzyl alcohol	100-51-6	1	ND	ug/L	U	2.4	5
4-Bromophenyl phenyl ether	101-55-3	1	ND	ug/L	U	2.6	5
Butyl benzyl phthalate	85-68-7	1	ND	ug/L	U	2.7	5
2-sec-Butyl-4,6-dinitrophenol	88-85-7	1	ND	ug/L	U	10	10
4-Chloroaniline	106-47-8	1	ND	ug/L	U	3.8	5
Bis(2-chloroethoxy)methane	111-91-1	1	ND	ug/L	U	2.9	5
Bis(2-chloroethyl) ether	111-44-4	1	ND	ug/L	U	2.1	5
Bis(2-chloroisopropyl) ether	108-60-1	1	ND	ug/L	U	1.9	5
4-Chloro-3-methylphenol	59-50-7	1	ND	ug/L	U	3.2	5
2-Chloronaphthalene	91-58-7	1	ND	ug/L	U	4.2	5
2-Chlorophenol	95-57-8	1	ND	ug/L	U	2.9	5
4-Chlorophenyl phenyl ether	7005-72-3	1	ND	ug/L	U	3.9	5
Chrysene	218-01-9	1	ND	ug/L	U	4.2	5
Dibenz(a,h)anthracene	53-70-3	1	ND	ug/L	U	3.4	5
Dibenzofuran	132-64-9	1	ND	ug/L	U	4	5
1,3-Dichlorobenzene	541-73-1	1	ND	ug/L	U	3	5
1,4-Dichlorobenzene	106-46-7	1	ND	ug/L	U	2.9	5
1,2-Dichlorobenzene	95-50-1	1	ND	ug/L	U	2.6	5
Di-n-butyl phthalate	84-74-2	1	ND	ug/L	U	5.2	20

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Form 1 - Data Summary Report
 Prepared By: HydroLogic Laboratories, Inc.

Client ID: CAFB-100296-MWO-1
 Project Number: 95-321
 Sample ID: L3410-5
 Site / Project ID: CANNON AFB, NM
 Run ID: R5053
 Collection Date: 02-OCT-96
 Received Date: 04-OCT-96
 Report Date: 11-OCT-96

Analyte	CAS No.	Dil	Sample Conc.	Units	Qual	MDL	RL
3,3'-Dichlorobenzidine	91-94-1	1	ND	ug/L	U	3.6	10
2,4-Dichlorophenol	120-83-2	1	ND	ug/L	U	4.4	5
2,6-Dichlorophenol	87-65-0	1	ND	ug/L	U	4.4	5
Diethyl phthalate	84-66-2	1	ND	ug/L	U	5.1	10
p-Dimethylaminoazobenzene	60-11-7	1	ND	ug/L	U	2.5	5
7,12-Dimethylbenz(a)anthracene	57-97-6	1	ND	ug/L	U	3.4	5
3,3'-Dimethylbenzidine	119-93-7	1	ND	ug/L	U	5	10
a,a-Dimethylphenethylamine	122-09-8	1	ND	ug/L	U	4.5	100
2,4-Dimethylphenol	105-67-9	1	ND	ug/L	U	3.2	5
Dimethyl phthalate	131-11-3	1	ND	ug/L	U	4.8	5
1,3-Dinitrobenzene	99-65-0	1	ND	ug/L	U	5	10
4,6-Dinitro-2-methylphenol	534-52-1	1	ND	ug/L	U	4.3	25
2,4-Dinitrophenol	51-28-5	1	ND	ug/L	U	6.9	25
2,4-Dinitrotoluene	121-14-2	1	ND	ug/L	U	2.9	5
2,6-Dinitrotoluene	606-20-2	1	ND	ug/L	U	3.8	5
Di-n-octyl phthalate	117-84-0	1	ND	ug/L	U	2.7	5
Diphenylamine	122-39-4	1	ND	ug/L	U	4.2	10
bis(2-ethylhexyl) phthalate	117-81-7	1	10	ug/L	B	3.6	5
Ethyl methanesulfonate	62-50-0	1	ND	ug/L	U	2.6	10
Fluoranthene	206-44-0	1	ND	ug/L	U	4	5
Fluorene	86-73-7	1	ND	ug/L	U	3.3	5
Hexachlorobenzene	118-74-1	1	ND	ug/L	U	2.5	5
Hexachlorobutadiene	87-68-3	1	ND	ug/L	U	3	5
Hexachlorocyclopentadiene	77-47-4	1	ND	ug/L	U	2.2	5
Hexachloroethane	67-72-1	1	ND	ug/L	U	4.7	5
Hexachloropropene	1888-71-7	1	ND	ug/L	U	5	5
Hexachlorophene	70-30-4	1	ND	ug/L	U	100	100
Indeno(1,2,3-cd)pyrene	193-39-5	1	ND	ug/L	U	3.1	5
Isophorone	78-59-1	1	ND	ug/L	U	3	5
Isosafrole	120-58-1	1	ND	ug/L	U	20	20
Methapyrilene	91-80-5	1	ND	ug/L	U	10	10
3-Methylcholanthrene	56-49-5	1	ND	ug/L	U	2.7	5
Methyl methanesulfonate	66-27-3	1	ND	ug/L	U	2.9	5
2-Methylnaphthalene	91-57-6	1	ND	ug/L	U	2.8	5
2-Methylphenol	95-48-7	1	ND	ug/L	U	1.9	5
3&4-Methylphenol	NA	1	ND	ug/L	U	2	5

Review By: Bob Cathel

Report Approved By: Karen Kuoppala

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- Dil - Sample Dilution Factor
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Form 1 - Data Summary Report
 Prepared By: HydroLogic Laboratories, Inc.

Client ID: CAFB-100296-MWO-1
 Project Number: 95-321
 Sample ID: L3410-5
 Site / Project ID: CANNON AFB, NM
 Run ID: R5053
 Collection Date: 02-OCT-96
 Received Date: 04-OCT-96
 Report Date: 11-OCT-96

Analyte	CAS No.	Dil	Sample Conc.	Units	Qual	MDL	RL
Naphthalene	91-20-3	1	ND	ug/L	U	2.4	5
1,4-Naphthoquinone	130-15-4	1	ND	ug/L	U	10	10
1-Naphthylamine	134-32-7	1	ND	ug/L	U	3.8	5
2-Naphthylamine	91-59-8	1	ND	ug/L	U	3.9	5
2-Nitroaniline	88-74-4	1	ND	ug/L	U	3.7	25
3-Nitroaniline	99-09-2	1	ND	ug/L	U	3.4	25
4-Nitroaniline	100-01-6	1	ND	ug/L	U	6.4	25
Nitrobenzene	98-95-3	1	ND	ug/L	U	4.7	5
2-Nitrophenol	88-75-5	1	ND	ug/L	U	4.3	5
4-Nitrophenol	100-02-7	1	ND	ug/L	U	8.4	25
N-Nitroso-di-n-butylamine	924-16-3	1	ND	ug/L	U	3	5
N-Nitrosodiethylamine	55-18-5	1	ND	ug/L	U	10	10
N-Nitrosodimethylamine	62-75-9	1	ND	ug/L	U	2	10
N-Nitrosodiphenylamine	86-30-6	1	ND	ug/L	U	5.2	25
N-Nitrosodipropylamine	621-64-7	1	ND	ug/L	U	3.1	5
N-Nitrosomethylethylamine	10595-95-6	1	ND	ug/L	U	10	10
N-Nitrosomorpholine	59-89-2	1	ND	ug/L	U	10	10
N-Nitrosopiperidine	100-75-4	1	ND	ug/L	U	3.4	10
N-Nitrosopyrrolidine	930-55-2	1	ND	ug/L	U	10	10
5-Nitro-o-toluidine	99-55-8	1	ND	ug/L	U	10	10
4-Nitroquinoline-n-oxide	56-57-5	1	ND	ug/L	U	100	100
Pentachlorobenzene	608-93-5	1	ND	ug/L	U	3.9	5
Pentachloroethane	76-01-7	1	ND	ug/L	U	10	10
Pentachloronitrobenzene	82-68-8	1	ND	ug/L	U	4.7	10
Pentachlorophenol	87-86-5	1	ND	ug/L	U	5.7	25
Phenacetin	62-44-2	1	ND	ug/L	U	5.9	25
Phenanthrene	85-01-8	1	ND	ug/L	U	2.5	5
Phenol	108-95-2	1	ND	ug/L	U	3.4	5
p-Phenylenediamine	106-50-3	1	ND	ug/L	U	100	100
2-Picoline	109-06-8	1	ND	ug/L	U	3.6	5
Pronamide	23950-58-5	1	ND	ug/L	U	3.8	5
Pyrene	129-00-0	1	ND	ug/L	U	3.5	5
Pyridine	110-86-1	1	ND	ug/L	U	10	10
Safrole	94-59-7	1	ND	ug/L	U	10	10
1,2,4,5-Tetrachlorobenzene	95-94-3	1	ND	ug/L	U	5.1	10
2,3,4,6-Tetrachlorophenol	58-90-2	1	ND	ug/L	U	4.5	5

Review By: Bob Cathel

Report Approved By: Karen Kuoppala

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Form 1 - Data Summary Report
Prepared By: HydroLogic Laboratories, Inc.

Client ID: CAFB-100296-MWO-1
Project Number: 95-321
Sample ID: L3410-5
Site / Project ID: CANNON AFB, NM
Run ID: R5053
Collection Date: 02-OCT-96
Received Date: 04-OCT-96
Report Date: 11-OCT-96

Analyte	CAS No.	Dil	Sample Conc.	Units	Qual	MDL	RL
o-Toluidine	95-53-4	1	ND	ug/L	U	10	10
1,2,4-Trichlorobenzene	120-82-1	1	ND	ug/L	U	3.2	5
2,4,5-Trichlorophenol	95-95-4	1	ND	ug/L	U	5.6	25
2,4,6-Trichlorophenol	88-06-2	1	ND	ug/L	U	4.4	5
1,3,5-Trinitrobenzene	99-35-4	1	ND	ug/L	U	10	10
Nitrobenzene-d5	SURROGATE	1	68	%			
2-Fluorobiphenyl	SURROGATE	1	72	%			
p-Terphenyl-d14	SURROGATE	1	88	%			
Phenol-d6	SURROGATE	1	76	%			
2-Fluorophenol	SURROGATE	1	61	%			
2,4,6-Tribromophenol	SURROGATE	1	89	%			

Review By: Bob Cathel

Report Approved By: Karen Kuoppala

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Form 1 - Data Summary Report
 Prepared By: HydroLogic Laboratories, Inc.

Client ID: CAFB-100296-MWO-1
 Project Number: 95-321
 Sample ID: L3410-5
 Site / Project ID: CANNON AFB, NM
 Run ID: R5053
 Collection Date: 02-OCT-96
 Received Date: 04-OCT-96
 Report Date: 11-OCT-96

Analyte	CAS No.	Dil	Sample Conc.	Units	Qual	MDL	RL
SW846 Methods 3520/8080							
Preparation Date: 08-OCT-96							
Analysis Date: 11-OCT-96 02:40							
Workgroup Number: WG8029							
Aldrin	309-00-2	1	ND	ug/L	U	.05	.05
alpha-BHC	319-84-6	1	ND	ug/L	U	.018	.05
beta-BHC	319-85-7	1	ND	ug/L	U	.015	.05
delta-BHC	319-86-8	1	ND	ug/L	U	.011	.05
gamma-BHC (Lindane)	58-89-9	1	ND	ug/L	U	.013	.05
alpha-Chlordane	5103-71-9	1	ND	ug/L	J	.01	.05
gamma-Chlordane	5103-74-2	1	ND	ug/L	J	.01	.05
Chlorobenzilate	510-15-6	1	ND	ug/L	U	.05	.1
4,4'-DDD	72-54-8	1	ND	ug/L	U	.078	.1
4,4'-DDE	72-55-9	1	ND	ug/L	U	.017	.1
4,4'-DDT	50-29-3	1	ND	ug/L	U	.031	.1
Diallate	60-57-1	1	ND	ug/L	U	.5	1
Dieldrin	60-57-1	1	ND	ug/L	U	.012	.1
Endosulfan I	959-98-8	1	ND	ug/L	U	.015	.05
Endosulfan II	33213-65-9	1	ND	ug/L	U	.013	.1
Endosulfan sulfate	1031-07-8	1	ND	ug/L	U	.018	.1
Endrin	72-20-8	1	ND	ug/L	U	.013	.1
Endrin aldehyde	7421-93-4	1	ND	ug/L	U	.081	.1
Heptachlor	76-44-8	1	ND	ug/L	U	.036	.05
Heptachlor epoxide	1024-57-3	1	ND	ug/L	U	.014	.05
Isodrin	465-73-6	1	ND	ug/L	U	.05	.1
Kepone	143-50-0	1	ND	ug/L	U	.5	1
Methoxychlor	72-43-5	1	ND	ug/L	U	.049	.5
Toxaphene	8001-35-2	1	ND	ug/L	U	.24	2.4
Aroclor-1016	12674-11-2	1	ND	ug/L	U	.18	.5
Aroclor-1221	11104-28-2	1	ND	ug/L	U	.11	.5
Aroclor-1232	11141-16-5	1	ND	ug/L	U	.11	.5
Aroclor-1242	53469-21-9	1	ND	ug/L	U	.11	.5
Aroclor-1248	12672-29-6	1	ND	ug/L	U	.11	.5
Aroclor-1254	11097-69-1	1	ND	ug/L	U	.11	1
Aroclor-1260	11096-82-5	1	ND	ug/L	U	.11	1
Tetrachloro-m-xylene	SURROGATE	1	68	%			

Review By: Bob Cathel

Report Approved By: Karen Kuoppala

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Form 1 - Data Summary Report
 Prepared By: HydroLogic Laboratories, Inc.

Client ID: CAFB-100296-MWO-1
 Project Number: 95-321
 Sample ID: L3410-5
 Site / Project ID: CANNON AFB, NM
 Run ID: R5053
 Collection Date: 02-OCT-96
 Received Date: 04-OCT-96
 Report Date: 11-OCT-96

Analyte	CAS No.	Dil	Sample Conc.	Units	Qual	MDL	RL
Decachlorobiphenyl	SURROGATE	1	101	%			
SW846 Met. 8150 (APIX)							
Preparation Date: 08-OCT-96							
Analysis Date: 14-OCT-96 21:48							
Workgroup Number: WG8030							
2,4-D	94-75-7	1	ND	ug/L	U	1	1
2,4,5-T	93-76-5	1	ND	ug/L	U	.1	.1
2,4,5-TP (Silvex)	93-72-1	1	ND	ug/L	U	.1	.1
DCAA	SURROGATE	1	66	%			

Review By: Bob Cathel

Report Approved By: Karen Kuoppala

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Form 1 - Data Summary Report
 Prepared By: HydroLogic Laboratories, Inc.

Client ID: CAFB-100296-MWO-1
 Project Number: 95-321
 Sample ID: L3410-5
 Site / Project ID: CANNON AFB, NM
 Run ID: R5053
 Collection Date: 02-OCT-96
 Received Date: 04-OCT-96
 Report Date: 11-OCT-96

Analyte	CAS No.	Dil	Sample Conc.	Units	Qual	MDL	RL
SW846 Met. 6010 (APIX)							
Preparation Date: 09-OCT-96							
Analysis Date: 10-OCT-96 09:48							
Workgroup Number: WG8041							
Barium	7440-39-3	1	.0551	mg/L		.00026	.02
Beryllium	7440-41-7	1	ND	mg/L	U	.00016	.004
Cadmium	7440-43-9	1	ND	mg/L	U	.0019	.005
Chromium	7440-47-3	1	ND	mg/L	U	.0045	.01
Cobalt	7440-48-4	1	ND	mg/L	U	.0053	.05
Copper	7440-50-8	1	ND	mg/L	U	.0073	.01
Nickel	7440-02-0	1	ND	mg/L	U	.0056	.02
Silver	7440-22-4	1	ND	mg/L	U	.0019	.01
Vanadium	7440-62-2	1	.0092	mg/L	J	.0017	.05
Zinc	7440-66-6	1	.016	mg/L	J	.0052	.02

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Report Approved By: Karen Kuoppala

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Form 1 - Data Summary Report
 Prepared By: HydroLogic Laboratories, Inc.

Client ID: CAFB-100296-MWO-1
 Project Number: 95-321
 Sample ID: L3410-5
 Site / Project ID: CANNON AFB, NM
 Run ID: R5053
 Collection Date: 02-OCT-96
 Received Date: 04-OCT-96
 Report Date: 11-OCT-96

Analyte	CAS No.	Dil	Sample Conc.	Units	Qual	MDL	RL
SW846 Method 7060 Analysis Date: 10-OCT-96 14:44 Workgroup Number: WG8044							
Arsenic	7440-38-2	1	ND	mg/L	U	.00073	.005
SW846 Method 7421 Analysis Date: 10-OCT-96 10:53 Workgroup Number: WG8043							
Lead	7439-92-1	1	ND	mg/L	U	.00089	.003
SW846 Method 7041 Analysis Date: 14-OCT-96 15:21 Workgroup Number: WG8042							
Antimony	7440-36-0	1	ND	mg/L	U	.00068	.006
SW846 Method 7740 Analysis Date: 10-OCT-96 11:05 Workgroup Number: WG8045							
Selenium	7782-49-2	1	ND	mg/L	U	.00074	.005
SW846 Method 7841 Analysis Date: 10-OCT-96 14:06 Workgroup Number: WG8046							
Thallium	7440-26-0	1	ND	mg/L	U	.00079	.01
SW846 Method 7470 Analysis Date: 10-OCT-96 15:51 Workgroup Number: WG8078							
Mercury	7439-97-6	1	ND	mg/L	U	.00005	.0002

Review By: Bob Cathel

Report Approved By: Karen Kuoppala

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Form 1 - Data Summary Report
 Prepared By: HydroLogic Laboratories, Inc.

Client ID: CAFB-100296-MWO-1
 Project Number: 95-321
 Sample ID: L3410-5
 Site / Project ID: CANNON AFB, NM
 Run ID: R5053
 Collection Date: 02-OCT-96
 Received Date: 04-OCT-96
 Report Date: 11-OCT-96

Analyte	CAS No.	Dil	Sample Conc.	Units	Qual	MDL	RL
SW846 Method 9012							
Analysis Date: 17-OCT-96 09:06							
Workgroup Number: WG8168							
Cyanide (tot.)	N/A	1	ND	mg/L	U	.018	.1
Cyanide (amen.)	N/A	1	ND	mg/L	U	.005	.02
SW-846, Method 9030							
Preparation Date: 08-OCT-96							
Analysis Date: 08-OCT-96 08:04							
Workgroup Number: WG8032							
Sulfide	N/A	1	ND	mg/L	U	.48	1
SW-846, Method 9060							
Analysis Date: 08-OCT-96 10:35							
Workgroup Number: WG8034							
Total Organic Carbon	N/A	1	7.7	mg/L		.15	1
SW-846, Method 9020							
Analysis Date: 09-OCT-96 14:08							
Workgroup Number: WG8099							
Total Organic Halides	N/A	1	.0216	mg/L		.001	.005

Review By: Bob Cathel

Report Approved By: Karen Kuoppala

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Form 1 - Data Summary Report
 Prepared By: HydroLogic Laboratories, Inc.

Client ID: CAFB-100296-TB04
 Project Number: 95-321
 Sample ID: L3410-6
 Site / Project ID: CANNON AFB, NM
 Run ID: R5087
 Collection Date: 02-OCT-96
 Received Date: 04-OCT-96
 Report Date: 15-OCT-96

Analyte	CAS No.	Dil	Sample Conc.	Units	Qual	MDL	RL
SW846 Met. 8260 (APIX)							
Preparation Date: 14-OCT-96							
Analysis Date: 14-OCT-96 19:11							
Workgroup Number: WGB106							
Acetone	67-64-1	1	ND	ug/L	U	1.5	100
Acetonitrile	75-05-8	1	ND	ug/L	U	.5	100
Acrolein	107-02-8	1	ND	ug/L	U	.5	100
Acrylonitrile	107-13-1	1	ND	ug/L	U	.5	100
Allyl chloride	107-05-1	1	ND	ug/L	U	.5	10
Benzene	71-43-2	1	ND	ug/L	U	.39	5
Bromodichloromethane	75-27-4	1	ND	ug/L	U	.64	5
Bromoform	75-25-2	1	ND	ug/L	U	.47	5
Bromomethane	74-83-9	1	ND	ug/L	U	.49	10
2-Butanone	78-93-3	1	ND	ug/L	U	1.1	100
Carbon disulfide	75-15-0	1	ND	ug/L	U	1.1	100
Carbon tetrachloride	56-23-5	1	ND	ug/L	U	1.4	5
Chlorobenzene	108-90-7	1	ND	ug/L	U	.44	5
Chloroethane	75-00-3	1	ND	ug/L	U	.54	10
Chloroform	67-66-3	1	ND	ug/L	U	1.4	5
Chloromethane	74-87-3	1	ND	ug/L	U	2	10
Dibromochloromethane	124-48-1	1	ND	ug/L	U	.5	5
1,2-Dibromo-3-chloropropane	96-12-8	1	ND	ug/L	U	.61	100
1,2-Dibromoethane	106-93-4	1	ND	ug/L	U	.5	5
Dibromomethane	74-95-3	1	ND	ug/L	U	1.4	5
trans-1,4-Dichloro-2-butene	110-57-6	1	ND	ug/L	U	.5	5
Dichlorodifluoromethane	75-71-8	1	ND	ug/L	U	.43	10
1,1-Dichloroethane	75-34-3	1	ND	ug/L	U	1.7	5
1,2-Dichloroethane	107-06-2	1	ND	ug/L	U	2.1	5
1,1-Dichloroethene	75-35-4	1	ND	ug/L	U	.48	5
trans-1,2-Dichloroethene	156-60-5	1	ND	ug/L	U	.55	5
cis-1,2-Dichloroethene	156-59-2	1	ND	ug/L	U	.5	5
1,2-Dichloropropane	78-87-5	1	ND	ug/L	U	.51	5
cis-1,3-Dichloropropene	10061-01-5	1	ND	ug/L	U	.78	5
trans-1,3-Dichloropropene	10061-02-6	1	ND	ug/L	U	.55	5
1,4-Dioxane	123-91-1	1	ND	ug/L	U	100	100
Ethylbenzene	100-41-4	1	ND	ug/L	U	.75	5

Review By: Bob Cathel

Report Approved By: Karen Kuoppala

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Form 1 - Data Summary Report
 Prepared By: HydroLogic Laboratories, Inc.

Client ID: CAFB-100296-TB04
 Project Number: 95-321
 Sample ID: L3410-6
 Site / Project ID: CANNON AFB, NM
 Run ID: R5087
 Collection Date: 02-OCT-96
 Received Date: 04-OCT-96
 Report Date: 15-OCT-96

Analyte	CAS No.	Dil	Sample Conc.	Units	Qual	MDL	RL
Ethyl methacrylate	97-63-2	1	ND	ug/L	U	.5	5
2-Hexanone	591-78-6	1	ND	ug/L	U	.5	100
Iodomethane	74-88-4	1	ND	ug/L	U	10	10
Methacrylonitrile	126-98-7	1	ND	ug/L	U	.5	100
Methylene chloride	75-09-2	1	ND	ug/L	U	.75	5
Methyl methacrylate	80-62-6	1	ND	ug/L	U	.5	50
4-Methyl-2-pentanone	108-10-1	1	ND	ug/L	U	.56	50
Propionitrile	107-12-0	1	ND	ug/L	U	.5	5
Styrene	100-42-5	1	ND	ug/L	U	.5	5
1,1,1,2-Tetrachloroethane	630-20-6	1	ND	ug/L	U	.45	5
1,1,2,2-Tetrachloroethane	79-34-5	1	ND	ug/L	U	.63	5
Tetrachloroethene	127-18-4	1	ND	ug/L	U	.49	5
Toluene	108-88-3	1	ND	ug/L	U	.85	5
1,1,1-Trichloroethane	71-55-6	1	ND	ug/L	U	1.7	5
1,1,2-Trichloroethane	79-00-5	1	ND	ug/L	U	1.2	5
Trichloroethene	79-01-6	1	ND	ug/L	U	.42	5
Trichlorofluoromethane	75-69-4	1	ND	ug/L	U	.5	5
1,2,3-Trichloropropane	96-18-4	1	ND	ug/L	U	1.1	5
Vinyl acetate	108-05-4	1	ND	ug/L	U	5	10
Vinyl chloride	75-01-4	1	ND	ug/L	U	.47	2
Xylene (Total)	1330-20-7	1	ND	ug/L	U	1	5
Dibromofluoromethane	SURROGATE	1	105	%			
Toluene-d8	SURROGATE	1	94	%			
4-Bromofluorobenzene	SURROGATE	1	102	%			

Review By: Bob Cathel

Report Approved By: Karen Kuoppala

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- Dil - Sample Dilution Factor
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- MDL - Method Detection Limit
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QC

DATA

PACKAGE

Form 1 - Data Summary Report
 Prepared By: HydroLogic Laboratories, Inc.

Client ID: Method Blank
 Project Number: Not Reported
 Sample ID: WG8087-1
 Site / Project ID: Not Reported
 Run ID: R5087
 Collection Date: Not Reported
 Received Date: 14-OCT-96
 Report Date: 14-OCT-96

Analyte	CAS No.	Dil	Sample Conc.	Units	Qual	MDL	RL
SW846 Method 8260 (5 ml)							
Preparation Date: 11-OCT-96							
Analysis Date: 11-OCT-96 13:21							
Workgroup Number: WG8087							
Benzene	71-43-2	1	ND	ug/L	U	.39	5
Bromobenzene	108-86-1	1	ND	ug/L	U	.57	5
Bromochloromethane	74-97-5	1	ND	ug/L	U	.69	5
Bromodichloromethane	75-27-4	1	ND	ug/L	U	.64	5
Bromoform	75-25-2	1	ND	ug/L	U	.47	5
Bromomethane	74-83-9	1	ND	ug/L	U	.49	10
tert-Butylbenzene	98-06-6	1	ND	ug/L	U	.59	10
sec-Butylbenzene	135-98-8	1	ND	ug/L	U	.63	10
n-Butylbenzene	104-51-8	1	ND	ug/L	U	.59	10
Carbon tetrachloride	56-23-5	1	ND	ug/L	U	1.4	5
Chlorobenzene	108-90-7	1	ND	ug/L	U	.44	5
Chloroethane	75-00-3	1	ND	ug/L	U	.54	10
Chloroform	67-66-3	1	ND	ug/L	U	1.4	5
Chloromethane	74-87-3	1	ND	ug/L	U	2	10
2-Chlorotoluene	95-49-8	1	ND	ug/L	U	.51	10
4-Chlorotoluene	106-43-4	1	ND	ug/L	U	.51	10
1,2-Dibromo-3-chloropropane	96-12-8	1	ND	ug/L	U	.61	100
Dibromochloromethane	124-48-1	1	ND	ug/L	U	.5	5
1,2-Dibromoethane	106-93-4	1	ND	ug/L	U	.5	5
Dibromomethane	74-95-3	1	ND	ug/L	U	1.4	5
1,3-Dichlorobenzene	541-73-1	1	ND	ug/L	U	.7	10
1,4-Dichlorobenzene	106-46-7	1	ND	ug/L	U	.56	10
1,2-Dichlorobenzene	95-50-1	1	ND	ug/L	U	.73	10
Dichlorodifluoromethane	75-71-8	1	ND	ug/L	U	.43	10
1,1-Dichloroethane	75-34-3	1	ND	ug/L	U	1.7	5
1,2-Dichloroethane	107-06-2	1	ND	ug/L	U	2.1	5
1,1-Dichloroethene	75-35-4	1	ND	ug/L	U	.48	5
trans-1,2-Dichloroethene	156-60-5	1	ND	ug/L	U	.55	5
cis-1,2-Dichloroethene	156-59-2	1	ND	ug/L	U	1.8	5
2,2-Dichloropropane	590-20-7	1	ND	ug/L	U	3.3	5
1,2-Dichloropropane	78-87-5	1	ND	ug/L	U	.51	5
1,3-Dichloropropane	142-28-9	1	ND	ug/L	U	1.5	5

Review By: Bob Cathel

Report Approved By: Karen Kuoppala

Qual - U = Analyte Not Detected above the Method Detection Limit
 - J = Estimated Concentration, B = Analyte Detected in the Blank
 - E = Analyte Conc. is above the Method Calibration Range
 Dil - Sample Dilution Factor
 ND - Sample Concentration Not Detected above MDL
 MDL - Method Detection Limit
 RL - Method Reporting Limit

Form 1 - Data Summary Report
 Prepared By: HydroLogic Laboratories, Inc.

Client ID: Method Blank
 Project Number: Not Reported
 Sample ID: WG8087-1
 Site / Project ID: Not Reported
 Run ID: R5087
 Collection Date: Not Reported
 Received Date: 14-OCT-96
 Report Date: 14-OCT-96

Analyte	CAS No.	Dil	Sample Conc.	Units	Qual	MDL	RL
1,1-Dichloropropene	563-58-6	1	ND	ug/L	U	1.7	5
cis-1,3-Dichloropropene	10061-01-5	1	ND	ug/L	U	.78	5
trans-1,3-Dichloropropene	10061-02-6	1	ND	ug/L	U	.55	5
Ethylbenzene	100-41-4	1	ND	ug/L	U	.75	5
Hexachlorobutadiene	87-68-3	1	ND	ug/L	U	1.1	10
Isopropylbenzene	98-82-8	1	ND	ug/L	U	.54	10
p-Isopropyltoluene	99-87-6	1	ND	ug/L	U	.64	10
Methylene chloride	75-09-2	1	ND	ug/L	U	.75	5
Naphthalene	91-20-3	1	ND	ug/L	U	1	10
n-Propylbenzene	103-65-1	1	ND	ug/L	U	.62	10
Styrene	100-42-5	1	ND	ug/L	U	.72	5
1,1,1,2-Tetrachloroethane	630-20-6	1	ND	ug/L	U	.45	5
1,1,2,2-Tetrachloroethane	79-34-5	1	ND	ug/L	U	.63	5
Tetrachloroethene	127-18-4	1	ND	ug/L	U	.49	5
Toluene	108-88-3	1	ND	ug/L	U	.85	5
1,2,4-Trichlorobenzene	120-82-1	1	ND	ug/L	U	.84	10
1,2,3-Trichlorobenzene	87-61-6	1	ND	ug/L	U	.94	10
1,1,1-Trichloroethane	71-55-6	1	ND	ug/L	U	1.7	5
1,1,2-Trichloroethane	79-00-5	1	ND	ug/L	U	1.2	5
Trichloroethene	79-01-6	1	ND	ug/L	U	.42	5
Trichlorofluoromethane	75-69-4	1	ND	ug/L	U	.62	5
1,2,3-Trichloropropane	96-18-4	1	ND	ug/L	U	1.1	5
1,3,5-Trimethylbenzene	108-67-8	1	ND	ug/L	U	.55	10
1,2,4-Trimethylbenzene	95-63-6	1	ND	ug/L	U	.56	10
Vinyl chloride	75-01-4	1	ND	ug/L	U	.47	2
(m+p)-Xylene	NA	1	ND	ug/L	U	2.3	5
o-Xylene	95-47-6	1	ND	ug/L	U	1.4	5
Dibromofluoromethane	SURROGATE	1	87	%			
Toluene-d8	SURROGATE	1	92	%			
4-Bromofluorobenzene	SURROGATE	1	89	%			

Review By: Bob Cathel

Report Approved By: Karen Kuoppala

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- Dil - Sample Dilution Factor
- ND - Sample Concentration Not Detected above MDL
- MDL - Method Detection Limit
- RL - Method Reporting Limit

Form 1 - Data Summary Report
 Prepared By: HydroLogic Laboratories, Inc.

Client ID: Method Blank
 Project Number: Not Reported
 Sample ID: WG8060-1
 Site / Project ID: Not Reported
 Run ID: R5177
 Collection Date: Not Reported
 Received Date: 09-OCT-96
 Report Date: 24-OCT-96

Analyte	CAS No.	Dil	Sample Conc.	Units	Qual	MDL	RL
SW846 Met. 8270 (APIX)							
Preparation Date: 09-OCT-96							
Analysis Date: 22-OCT-96 16:27							
Workgroup Number: WG8060							
Acenaphthene	83-32-9	1	ND	ug/L	U	4.2	5
Acenaphthylene	208-96-8	1	ND	ug/L	U	3.5	5
Acetophenone	98-86-2	1	ND	ug/L	U	2.9	5
2-Acetylaminofluorene	53-96-3	1	ND	ug/L	U	100	100
4-Aminobiphenyl	92-67-1	1	ND	ug/L	U	3.3	10
Aniline	62-53-3	1	ND	ug/L	U	2.4	5
Anthracene	120-12-7	1	ND	ug/L	U	2.6	5
Aramite	140-57-8	1	ND	ug/L	U	10	10
Benz(a)anthracene	56-55-3	1	ND	ug/L	U	2.8	5
Benzo(b)fluoranthene	205-99-2	1	ND	ug/L	U	2.6	5
Benzo(k)fluoranthene	207-08-9	1	ND	ug/L	U	3.9	5
Benzo(g,h,i)perylene	191-24-2	1	ND	ug/L	U	3.1	5
Benzo(a)pyrene	50-32-8	1	ND	ug/L	U	3.5	5
Benzyl alcohol	100-51-6	1	ND	ug/L	U	2.4	5
4-Bromophenyl phenyl ether	101-55-3	1	ND	ug/L	U	2.6	5
Butyl benzyl phthalate	85-68-7	1	ND	ug/L	U	2.7	5
2-sec-Butyl-4,6-dinitrophenol	88-85-7	1	ND	ug/L	U	10	10
4-Chloroaniline	106-47-8	1	ND	ug/L	U	3.8	5
Bis(2-chloroethoxy)methane	111-91-1	1	ND	ug/L	U	2.9	5
Bis(2-chloroethyl) ether	111-44-4	1	ND	ug/L	U	2.1	5
Bis(2-chloroisopropyl) ether	108-60-1	1	ND	ug/L	U	1.9	5
4-Chloro-3-methylphenol	59-50-7	1	ND	ug/L	U	3.2	5
2-Chloronaphthalene	91-58-7	1	ND	ug/L	U	4.2	5
2-Chlorophenol	95-57-8	1	ND	ug/L	U	2.9	5
4-Chlorophenyl phenyl ether	7005-72-3	1	ND	ug/L	U	3.9	5
Chrysene	218-01-9	1	ND	ug/L	U	4.2	5
Dibenz(a,h)anthracene	53-70-3	1	ND	ug/L	U	3.4	5
Dibenzofuran	132-64-9	1	ND	ug/L	U	4	5
1,3-Dichlorobenzene	541-73-1	1	ND	ug/L	U	3	5
1,4-Dichlorobenzene	106-46-7	1	ND	ug/L	U	2.9	5
1,2-Dichlorobenzene	95-50-1	1	ND	ug/L	U	2.6	5
Di-n-butyl phthalate	84-74-2	1	ND	ug/L	U	5.2	20

Review By: Bob Cathel

Report Approved By: Karen Kuoppala

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- Dil - Sample Dilution Factor
- ND - Sample Concentration Not Detected above MDL
- MDL - Method Detection Limit
- RL - Method Reporting Limit

Form 1 - Data Summary Report
 Prepared By: HydroLogic Laboratories, Inc.

Client ID: Method Blank
 Project Number: Not Reported
 Sample ID: WG8060-1
 Site / Project ID: Not Reported
 Run ID: R5177
 Collection Date: Not Reported
 Received Date: 09-OCT-96
 Report Date: 24-OCT-96

Analyte	CAS No.	Dil	Sample Conc.	Units	Qual	MDL	RL
3,3'-Dichlorobenzidine	91-94-1	1	ND	ug/L	U	3.6	10
2,4-Dichlorophenol	120-83-2	1	ND	ug/L	U	4.4	5
2,6-Dichlorophenol	87-65-0	1	ND	ug/L	U	4.4	5
Diethyl phthalate	84-66-2	1	ND	ug/L	U	5.1	10
p-Dimethylaminoazobenzene	60-11-7	1	ND	ug/L	U	2.5	5
7,12-Dimethylbenz(a)anthracene	57-97-6	1	ND	ug/L	U	3.4	5
3,3'-Dimethylbenzidine	119-93-7	1	ND	ug/L	U	5	10
a,a-Dimethylphenethylamine	122-09-8	1	ND	ug/L	U	4.5	100
2,4-Dimethylphenol	105-67-9	1	ND	ug/L	U	3.2	5
Dimethyl phthalate	131-11-3	1	ND	ug/L	U	4.8	5
1,3-Dinitrobenzene	99-65-0	1	ND	ug/L	U	5	10
4,6-Dinitro-2-methylphenol	534-52-1	1	ND	ug/L	U	4.3	25
2,4-Dinitrophenol	51-28-5	1	ND	ug/L	U	6.9	25
2,4-Dinitrotoluene	121-14-2	1	ND	ug/L	U	2.9	5
2,6-Dinitrotoluene	606-20-2	1	ND	ug/L	U	3.8	5
Di-n-octyl phthalate	117-84-0	1	ND	ug/L	U	2.7	5
Diphenylamine	122-39-4	1	ND	ug/L	U	4.2	10
bis(2-ethylhexyl) phthalate	117-81-7	1	10	ug/L	U	3.6	5
Ethyl methanesulfonate	62-50-0	1	ND	ug/L	U	2.6	10
Fluoranthene	206-44-0	1	ND	ug/L	U	4	5
Fluorene	86-73-7	1	ND	ug/L	U	3.3	5
Hexachlorobenzene	118-74-1	1	ND	ug/L	U	2.5	5
Hexachlorobutadiene	87-68-3	1	ND	ug/L	U	3	5
Hexachlorocyclopentadiene	77-47-4	1	ND	ug/L	U	2.2	5
Hexachloroethane	67-72-1	1	ND	ug/L	U	4.7	5
Hexachloropropene	1888-71-7	1	ND	ug/L	U	5	5
Hexachlorophene	70-30-4	1	ND	ug/L	U	100	100
Indeno(1,2,3-cd)pyrene	193-39-5	1	ND	ug/L	U	3.1	5
Isophorone	78-59-1	1	ND	ug/L	U	3	5
Isosafrole	120-58-1	1	ND	ug/L	U	20	20
Methapyrilene	91-80-5	1	ND	ug/L	U	10	10
3-Methylcholanthrene	56-49-5	1	ND	ug/L	U	2.7	5
Methyl methanesulfonate	66-27-3	1	ND	ug/L	U	2.9	5
2-Methylnaphthalene	91-57-6	1	ND	ug/L	U	2.8	5
2-Methylphenol	95-48-7	1	ND	ug/L	U	1.9	5
3&4-Methylphenol	NA	1	ND	ug/L	U	2	5

Review By: Bob Cathel

Report Approved By: Karen Kuoppala

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- ND - Sample Concentration Not Detected above MDL
- MDL - Method Detection Limit
- RL - Method Reporting Limit

Form 1 - Data Summary Report
 Prepared By: HydroLogic Laboratories, Inc.

Client ID: Method Blank
 Project Number: Not Reported
 Sample ID: WG8060-1
 Site / Project ID: Not Reported
 Run ID: R5177
 Collection Date: Not Reported
 Received Date: 09-OCT-96
 Report Date: 24-OCT-96

Analyte	CAS No.	Dil	Sample Conc.	Units	Qual	MDL	RL
Naphthalene	91-20-3	1	ND	ug/L	U	2.4	5
1,4-Naphthoquinone	130-15-4	1	ND	ug/L	U	10	10
1-Naphthylamine	134-32-7	1	ND	ug/L	U	3.8	5
2-Naphthylamine	91-59-8	1	ND	ug/L	U	3.9	5
2-Nitroaniline	88-74-4	1	ND	ug/L	U	3.7	25
3-Nitroaniline	99-09-2	1	ND	ug/L	U	3.4	25
4-Nitroaniline	100-01-6	1	ND	ug/L	U	6.4	25
Nitrobenzene	98-95-3	1	ND	ug/L	U	4.7	5
2-Nitrophenol	88-75-5	1	ND	ug/L	U	4.3	5
4-Nitrophenol	100-02-7	1	ND	ug/L	U	8.4	25
N-Nitroso-di-n-butylamine	924-16-3	1	ND	ug/L	U	3	5
N-Nitrosodiethylamine	55-18-5	1	ND	ug/L	U	10	10
N-Nitrosodimethylamine	62-75-9	1	ND	ug/L	U	2	10
N-Nitrosodiphenylamine	86-30-6	1	ND	ug/L	U	5.2	25
N-Nitrosodipropylamine	621-64-7	1	ND	ug/L	U	3.1	5
N-Nitrosomethylethylamine	10595-95-6	1	ND	ug/L	U	10	10
N-Nitrosomorpholine	59-89-2	1	ND	ug/L	U	10	10
N-Nitrosopiperidine	100-75-4	1	ND	ug/L	U	3.4	10
N-Nitrosopyrrolidine	930-55-2	1	ND	ug/L	U	10	10
5-Nitro-o-toluidine	99-55-8	1	ND	ug/L	U	10	10
4-Nitroquinoline-n-oxide	56-57-5	1	ND	ug/L	U	100	100
Pentachlorobenzene	608-93-5	1	ND	ug/L	U	3.9	5
Pentachloroethane	76-01-7	1	ND	ug/L	U	10	10
Pentachloronitrobenzene	82-68-8	1	ND	ug/L	U	4.7	10
Pentachlorophenol	87-86-5	1	ND	ug/L	U	5.7	25
Phenacetin	62-44-2	1	ND	ug/L	U	5.9	25
Phenanthrene	85-01-8	1	ND	ug/L	U	2.5	5
Phenol	108-95-2	1	ND	ug/L	U	3.4	5
p-Phenylenediamine	106-50-3	1	ND	ug/L	U	100	100
2-Picoline	109-06-8	1	ND	ug/L	U	3.6	5
Pronamide	23950-58-5	1	ND	ug/L	U	3.8	5
Pyrene	129-00-0	1	ND	ug/L	U	3.5	5
Pyridine	110-86-1	1	ND	ug/L	U	10	10
Safrole	94-59-7	1	ND	ug/L	U	10	10
1,2,4,5-Tetrachlorobenzene	95-94-3	1	ND	ug/L	U	5.1	10
2,3,4,6-Tetrachlorophenol	58-90-2	1	ND	ug/L	U	4.5	5

Review By: Bob Cathel

Report Approved By: Karen Kuoppala

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- Dil - Sample Dilution Factor
 ND - Sample Concentration Not Detected above MDL
 MDL - Method Detection Limit
 RL - Method Reporting Limit

Form 1 - Data Summary Report
 Prepared By: HydroLogic Laboratories, Inc.

Client ID: Method Blank
 Project Number: Not Reported
 Sample ID: WG8060-1
 Site / Project ID: Not Reported
 Run ID: R5177
 Collection Date: Not Reported
 Received Date: 09-OCT-96
 Report Date: 24-OCT-96

Analyte	CAS No.	Dil	Sample Conc.	Units	Qual	MDL	RL
o-Toluidine	95-53-4	1	ND	ug/L	U	10	10
1,2,4-Trichlorobenzene	120-82-1	1	ND	ug/L	U	3.2	5
2,4,5-Trichlorophenol	95-95-4	1	ND	ug/L	U	5.6	25
2,4,6-Trichlorophenol	88-06-2	1	ND	ug/L	U	4.4	5
1,3,5-Trinitrobenzene	99-35-4	1	ND	ug/L	U	10	10
Nitrobenzene-d5	SURROGATE	1	66	%			
2-Fluorobiphenyl	SURROGATE	1	64	%			
p-Terphenyl-d14	SURROGATE	1	122	%			
Phenol-d6	SURROGATE	1	68	%			
2-Fluorophenol	SURROGATE	1	56	%			
2,4,6-Tribromophenol	SURROGATE	1	68	%			

Review By: Bob Cathel

Report Approved By: Karen Kuoppala

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 - E = Analyte Conc. is above the Method Calibration Range
- Dil - Sample Dilution Factor
- ND - Sample Concentration Not Detected above MDL
- MDL - Method Detection Limit
- RL - Method Reporting Limit

Form 1 - Data Summary Report
 Prepared By: HydroLogic Laboratories, Inc.

Client ID: Method Blank
 Project Number: Not Reported
 Sample ID: WG8029-1
 Site / Project ID: Not Reported
 Run ID: R5090
 Collection Date: Not Reported
 Received Date: 08-OCT-96
 Report Date: 14-OCT-96

Analyte	CAS No.	Dil	Sample Conc.	Units	Qual	MDL	RL
SW846 Methods 3520/8080							
Preparation Date: 08-OCT-96							
Analysis Date: 10-OCT-96 22:34							
Workgroup Number: WG8029							
Aldrin	309-00-2	1	ND	ug/L	U	.05	.05
alpha-BHC	319-84-6	1	ND	ug/L	U	.018	.05
beta-BHC	319-85-7	1	ND	ug/L	U	.015	.05
delta-BHC	319-86-8	1	ND	ug/L	U	.011	.05
gamma-BHC (Lindane)	58-89-9	1	ND	ug/L	U	.013	.05
alpha-Chlordane	5103-71-9	1	ND	ug/L	J	.01	.05
gamma-Chlordane	5103-74-2	1	ND	ug/L	J	.01	.05
Chlorobenzilate	510-15-6	1	ND	ug/L	U	.05	.1
4,4'-DDD	72-54-8	1	ND	ug/L	U	.078	.1
4,4'-DDE	72-55-9	1	ND	ug/L	U	.017	.1
4,4'-DDT	50-29-3	1	ND	ug/L	U	.031	.1
Diallate	60-57-1	1	ND	ug/L	U	.5	1
Dieldrin	60-57-1	1	ND	ug/L	U	.012	.1
Endosulfan I	959-98-8	1	ND	ug/L	U	.015	.05
Endosulfan II	33213-65-9	1	ND	ug/L	U	.013	.1
Endosulfan sulfate	1031-07-8	1	ND	ug/L	U	.018	.1
Endrin	72-20-8	1	ND	ug/L	U	.013	.1
Endrin aldehyde	7421-93-4	1	ND	ug/L	U	.081	.1
Heptachlor	76-44-8	1	ND	ug/L	U	.036	.05
Heptachlor epoxide	1024-57-3	1	ND	ug/L	U	.014	.05
Isodrin	465-73-6	1	ND	ug/L	U	.05	.1
Kepone	143-50-0	1	ND	ug/L	U	.5	1
Methoxychlor	72-43-5	1	ND	ug/L	U	.049	.5
Toxaphene	8001-35-2	1	ND	ug/L	U	.24	2.4
Aroclor-1016	12674-11-2	1	ND	ug/L	U	.18	.5
Aroclor-1221	11104-28-2	1	ND	ug/L	U	.11	.5
Aroclor-1232	11141-16-5	1	ND	ug/L	U	.11	.5
Aroclor-1242	53469-21-9	1	ND	ug/L	U	.11	.5
Aroclor-1248	12672-29-6	1	ND	ug/L	U	.11	.5
Aroclor-1254	11097-69-1	1	ND	ug/L	U	.11	1
Aroclor-1260	11096-82-5	1	ND	ug/L	U	.11	1
Tetrachloro-m-xylene	SURROGATE	1	80	%			

Review By: Bob Cathel

Report Approved By: Karen Kuoppala

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Form 1 - Data Summary Report
Prepared By: HydroLogic Laboratories, Inc.

Client ID: Method Blank
Project Number: Not Reported
Sample ID: WG8029-1
Site / Project ID: Not Reported
Run ID: R5090
Collection Date: Not Reported
Received Date: 08-OCT-96
Report Date: 14-OCT-96

Analyte	CAS No.	Dil	Sample Conc.	Units	Qual	MDL	RL
Decachlorobiphenyl	SURROGATE	1	117	%			

Review By: Bob Cathel

Report Approved By: Karen Kuoppala

- Qual - U = Analyte Not Detected above the Method Detection Limit
- J = Estimated Concentration, B = Analyte Detected in the Blank
- E = Analyte Conc. is above the Method Calibration Range
- Dil - Sample Dilution Factor
- ND - Sample Concentration Not Detected above MDL
- MDL - Method Detection Limit
- RL - Method Reporting Limit

Form 1 - Data Summary Report
 Prepared By: HydroLogic Laboratories, Inc.

Client ID: Method Blank
 Project Number: Not Reported
 Sample ID: WG8041-1
 Site / Project ID: Not Reported
 Run ID: R5053
 Collection Date: Not Reported
 Received Date: 09-OCT-96
 Report Date: 11-OCT-96

Analyte	CAS No.	Dil	Sample Conc.	Units	Qual	MDL	RL
SW846 Met. 6010 (APIX)							
Preparation Date: 09-OCT-96							
Analysis Date: 10-OCT-96 09:11							
Workgroup Number: WG8041							
Barium	7440-39-3	1	.0006	mg/L	J	.00026	.02
Beryllium	7440-41-7	1	ND	mg/L	U	.00016	.004
Cadmium	7440-43-9	1	ND	mg/L	U	.0019	.005
Chromium	7440-47-3	1	ND	mg/L	U	.0045	.01
Cobalt	7440-48-4	1	ND	mg/L	U	.0053	.05
Copper	7440-50-8	1	ND	mg/L	U	.0073	.01
Nickel	7440-02-0	1	ND	mg/L	U	.0056	.02
Silver	7440-22-4	1	ND	mg/L	U	.0019	.01
Vanadium	7440-62-2	1	ND	mg/L	U	.0017	.05
Zinc	7440-66-6	1	ND	mg/L	U	.0052	.02

Review By: Bob Cathel

Report Approved By: Karen Kuoppala

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 - E = Analyte Conc. is above the Method Calibration Range
- Dil - Sample Dilution Factor
- ND - Sample Concentration Not Detected above MDL
- MDL - Method Detection Limit
- RL - Method Reporting Limit

Form 1 - Data Summary Report
Prepared By: HydroLogic Laboratories, Inc.

Client ID: Method Blank
Project Number: Not Reported
Sample ID: WG8042-1
Site / Project ID: Not Reported
Run ID: R5101
Collection Date: Not Reported
Received Date: 09-OCT-96
Report Date: 16-OCT-96

Analyte	CAS No.	Dil	Sample Conc.	Units	Qual	MDL	RL
SW846 Method 7041							
Analysis Date: 15-OCT-96 14:18							
Workgroup Number: WG8042							
Antimony	7440-36-0	1	ND	mg/L	U	.00068	.006

Review By: Bob Cathel

Report Approved By: Karen Kuoppala

- Qual - U = Analyte Not Detected above the Method Detection Limit
- J = Estimated Concentration, B = Analyte Detected in the Blank
- E = Analyte Conc. is above the Method Calibration Range
- Dil - Sample Dilution Factor
- ND - Sample Concentration Not Detected above MDL
- MDL - Method Detection Limit
- RL - Method Reporting Limit

Form 1 - Data Summary Report
Prepared By: HydroLogic Laboratories, Inc.

Client ID: Method Blank
Project Number: Not Reported
Sample ID: WG8044-1
Site / Project ID: Not Reported
Run ID: R5065
Collection Date: Not Reported
Received Date: 09-OCT-96
Report Date: 10-OCT-96

Analyte	CAS No.	Dil	Sample Conc.	Units	Qual	MDL	RL
SW846 Method 7060							
Analysis Date: 10-OCT-96 12:33							
Workgroup Number: WG8044							
Arsenic	7440-38-2	1	ND	mg/L	U	.00073	.005

Review By: Bob Cathel

Report Approved By: Karen Kuoppala

- Qual - U = Analyte Not Detected above the Method Detection Limit
- J = Estimated Concentration, B = Analyte Detected in the Blank
- E = Analyte Conc. is above the Method Calibration Range
- Dil - Sample Dilution Factor
- ND - Sample Concentration Not Detected above MDL
- MDL - Method Detection Limit
- RL - Method Reporting Limit

Form 1 - Data Summary Report
Prepared By: HydroLogic Laboratories, Inc.

Client ID: Method Blank
Project Number: Not Reported
Sample ID: WG8043-1
Site / Project ID: Not Reported
Run ID: R5064
Collection Date: Not Reported
Received Date: 09-OCT-96
Report Date: 10-OCT-96

Analyte	CAS No.	Dil	Sample Conc.	Units	Qual	MDL	RL
SW846 Method 7421							
Analysis Date: 10-OCT-96 10:02							
Workgroup Number: WG8043							
Lead	7439-92-1	1	ND	mg/L	U	.00089	.003

Review By: Bob Cathel

Report Approved By: Karen Kuoppala

- Qual - U = Analyte Not Detected above the Method Detection Limit
- J = Estimated Concentration, B = Analyte Detected in the Blank
- E = Analyte Conc. is above the Method Calibration Range
- Dil - Sample Dilution Factor
- ND - Sample Concentration Not Detected above MDL
- MDL - Method Detection Limit
- RL - Method Reporting Limit

Form 1 - Data Summary Report
Prepared By: HydroLogic Laboratories, Inc.

Client ID: Method Blank
Project Number: Not Reported
Sample ID: WG8045-1
Site / Project ID: Not Reported
Run ID: R5066
Collection Date: Not Reported
Received Date: 09-OCT-96
Report Date: 10-OCT-96

Analyte	CAS No.	Dil	Sample Conc.	Units	Qual	MDL	RL
SW846 Method 7740							
Analysis Date: 10-OCT-96 10:10							
Workgroup Number: WG8045							
Selenium	7782-49-2	1	ND	mg/L	U	.00074	.005

Review By: Bob Cathel

Report Approved By: Karen Kuoppala

- Qual - U = Analyte Not Detected above the Method Detection Limit
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- E = Analyte Conc. is above the Method Calibration Range
- Dil - Sample Dilution Factor
- ND - Sample Concentration Not Detected above MDL
- MDL - Method Detection Limit
- RL - Method Reporting Limit

Form 1 - Data Summary Report
Prepared By: HydroLogic Laboratories, Inc.

Client ID: Method Blank
Project Number: Not Reported
Sample ID: WG8046-1
Site / Project ID: Not Reported
Run ID: R5067
Collection Date: Not Reported
Received Date: 09-OCT-96
Report Date: 10-OCT-96

Analyte	CAS No.	Dil	Sample Conc.	Units	Qual	MDL	RL
SW846 Method 7841							
Analysis Date: 10-OCT-96 13:13							
Workgroup Number: WG8046							
Thallium	7440-26-0	1	ND	mg/L	U	.00079	.005

Review By: Bob Cathel

Report Approved By: Karen Kuoppala

- Qual - U = Analyte Not Detected above the Method Detection Limit
- J = Estimated Concentration, B = Analyte Detected in the Blank
- E = Analyte Conc. is above the Method Calibration Range
- Dil - Sample Dilution Factor
- ND - Sample Concentration Not Detected above MDL
- MDL - Method Detection Limit
- RL - Method Reporting Limit

Form 1 - Data Summary Report
Prepared By: HydroLogic Laboratories, Inc.

Client ID: Method Blank
Project Number: Not Reported
Sample ID: WG8078-1
Site / Project ID: Not Reported
Run ID: R5063
Collection Date: Not Reported
Received Date: 10-OCT-96
Report Date: 10-OCT-96

Analyte	CAS No.	Dil	Sample Conc.	Units	Qual	MDL	RL
SW846 Method 7470							
Analysis Date: 10-OCT-96 15:26							
Workgroup Number: WG8078							
Mercury	7439-97-6	1	ND	mg/L	U	.00005	.0002

Review By: Bob Cathel

Report Approved By: Karen Kuoppala

- Qual - U = Analyte Not Detected above the Method Detection Limit
- J = Estimated Concentration, B = Analyte Detected in the Blank
- E = Analyte Conc. is above the Method Calibration Range
- Dil - Sample Dilution Factor
- ND - Sample Concentration Not Detected above MDL
- MDL - Method Detection Limit
- RL - Method Reporting Limit

Form 1 - Data Summary Report
Prepared By: HydroLogic Laboratories, Inc.

Client ID: Method Blank
Project Number: Not Reported
Sample ID: WG8168-1
Site / Project ID: Not Reported
Run ID: R5124
Collection Date: Not Reported
Received Date: 18-OCT-96
Report Date: 18-OCT-96

Analyte	CAS No.	Dil	Sample Conc.	Units	Qual	MDL	RL
SW846 Method 9012							
Analysis Date: 17-OCT-96 09:06							
Workgroup Number: WG8168							
Cyanide (tot.)	N/A	1	ND	mg/L	U	.018	.1
Cyanide (amen.)	N/A	1	ND	mg/L	U	.005	.02

Review By: Bob Cathel

Report Approved By: Karen Kuoppala

Qual - U = Analyte Not Detected above the Method Detection Limit
- J = Estimated Concentration, B = Analyte Detected in the Blank
- E = Analyte Conc. is above the Method Calibration Range
Dil - Sample Dilution Factor
ND - Sample Concentration Not Detected above MDL
MDL - Method Detection Limit
RL - Method Reporting Limit

Form 1 - Data Summary Report
Prepared By: HydroLogic Laboratories, Inc.

Client ID: Method Blank
Project Number: Not Reported
Sample ID: WG8032-1
Site / Project ID: Not Reported
Run ID: R5039
Collection Date: Not Reported
Received Date: 08-OCT-96
Report Date: 08-OCT-96

Analyte	CAS No.	Dil	Sample Conc.	Units	Qual	MDL	RL
SW-846, Method 9030							
Preparation Date: 08-OCT-96							
Analysis Date: 08-OCT-96 08:04							
Workgroup Number: WG8032							
Sulfide	N/A	1	ND	mg/L	U	.48	1

Review By: Bob Cathel

Report Approved By: Karen Kuoppala

- Qual - U = Analyte Not Detected above the Method Detection Limit
- J = Estimated Concentration, B = Analyte Detected in the Blank
- E = Analyte Conc. is above the Method Calibration Range
- Dil - Sample Dilution Factor
- ND - Sample Concentration Not Detected above MDL
- MDL - Method Detection Limit
- RL - Method Reporting Limit

Form 1 - Data Summary Report
Prepared By: HydroLogic Laboratories, Inc.

Client ID: Method Blank
Project Number: Not Reported
Sample ID: WG8034-1
Site / Project ID: Not Reported
Run ID: R5041
Collection Date: Not Reported
Received Date: 08-OCT-96
Report Date: 08-OCT-96

Analyte	CAS No.	Dil	Sample Conc.	Units	Qual	MDL	RL
SW-846, Method 9060							
Analysis Date: 08-OCT-96 10:35							
Workgroup Number: WG8034							
Total Organic Carbon	N/A	1	.3	mg/L	J	.15	1

Review By: Bob Cathel

Report Approved By: Karen Kuoppala

- Qual - U = Analyte Not Detected above the Method Detection Limit
- J = Estimated Concentration, B = Analyte Detected in the Blank
- E = Analyte Conc. is above the Method Calibration Range
- Dil - Sample Dilution Factor
- ND - Sample Concentration Not Detected above MDL
- MDL - Method Detection Limit
- RL - Method Reporting Limit

Form 1 - Data Summary Report
Prepared By: HydroLogic Laboratories, Inc.

Client ID: Method Blank
Project Number: Not Reported
Sample ID: WG8099-1
Site / Project ID: Not Reported
Run ID: R5084
Collection Date: Not Reported
Received Date: 11-OCT-96
Report Date: 11-OCT-96

Analyte	CAS No.	Dil	Sample Conc.	Units	Qual	MDL	RL
SW-846, Method 9020							
Analysis Date: 02-OCT-96 07:05							
Workgroup Number: WG8099							
Total Organic Halides	N/A	1	ND	mg/L	J	.001	.005

Review By: Bob Cathel

Report Approved By: Karen Kuoppala

Qual - U = Analyte Not Detected above the Method Detection Limit
- J = Estimated Concentration, B = Analyte Detected in the Blank
- E = Analyte Conc. is above the Method Calibration Range
Dil - Sample Dilution Factor
ND - Sample Concentration Not Detected above MDL
MDL - Method Detection Limit
RL - Method Reporting Limit

Laboratory Control Spike / Laboratory Control Spike Duplicate QC Report
 Prepared By: HydroLogic Laboratories, Inc.

Sample Id: /usr/users/seed2/target/B0165
 Work Group Id: WG8087-2
 Run Id: R5087
 GALP Record Id: Not Reported
 Preparation Date: 11-OCT-96
 Analysis Date: 11-OCT-96
 Report Date: 14-OCT-96

Analyte	CAS No.	Low Limit	High Limit	RPD Limit	LCS Add	LCSD Add	Units	LCS %REC	LCSD %REC	LCS/LCSD RPD	QUAL (1)
SW846 Method 8260 (5 ml)											
Preparation Date: 11-OCT-96											
Analysis Date: 11-OCT-96 14:01											
Workgroup Number: WG8087											
Benzene	71-43-2	76	127	13	50	50	ug/L	78	82	5	---
Chlorobenzene	108-90-7	75	130	13	50	50	ug/L	92	100	8	---
1,1-Dichloroethene	75-35-4	61	145	14	50	50	ug/L	82	88	7	---
Toluene	108-88-3	76	125	13	50	50	ug/L	80	86	7	---
Trichloroethene	79-01-6	71	120	14	50	50	ug/L	82	88	7	---

Note:
 Technical Review By: Bob Cathel

Note:
 Report Approved By: Karen Kuoppala

(1) QUAL - * = LCS Outside Control Limits; # = LCSD Outside Control Limits; @ = RPD Outside Control Limits; '-' = Value Within Control Limits
 "Limits" - The "Limits" reported above (Low, High and RPD) are in units of percent (%).
 "LCS,SD Add" - The conc. of analyte added to the LCS or LCSD sample.
 "LCS %REC" - Laboratory Control Sample Percent Recovery
 "LCSD %REC" - Laboratory Control Sample Duplicate Percent Recovery
 "LCS/LCSD RPD" - Laboratory Control Sample / Laboratory Control Sample Duplicate Relative Percent Difference
 NR - Not Reported

Single Laboratory Control Spike QC Report
 Prepared By: HydroLogic Laboratories, Inc.

Sample Id: /usr/users/seed2/target/C1239
 Work Group Id: WG8060-2
 Run Id: R5177
 GALP Record Id: Not Reported
 Preparation Date: 09-OCT-96
 Analysis Date: 22-OCT-96
 Report Date: 24-OCT-96

Analyte	CAS No.	Sample Value	Units	Spike Conc.	Low Limit	High Limit	SLCS %REC	QUAL (1)
SW846 Met. 8270 (APIX)								
Preparation Date: 09-OCT-96								
Analysis Date: 22-OCT-96 17:12								
Workgroup Number: WG8060								
Acenaphthene	83-32-9	34	ug/L	50	47	118	68	-
4-Chloro-3-methylphenol	59-50-7	79	ug/L	50	23	97	158	*
2-Chlorophenol	95-57-8	58	ug/L	50	27	123	116	-
1,4-Dichlorobenzene	106-46-7	23	ug/L	50	36	97	46	-
2,4-Dinitrotoluene	121-14-2	40	ug/L	50	39	96	80	-
4-Nitrophenol	100-02-7	51	ug/L	50	10	80	102	*
N-Nitrosodipropylamine	621-64-7	40	ug/L	50	41	116	80	-
Pentachlorophenol	87-86-5	99	ug/L	50	14	103	198	*
Phenol	108-95-2	50	ug/L	50	12	89	100	*
Pyrene	129-00-0	60	ug/L	50	52	115	120	*
1,2,4-Trichlorobenzene	120-82-1	28	ug/L	50	44	98	56	-

Note:
 Technical Review By: Bob Cathel

Note:
 Report Approved By: Karen Kuoppala

(1) QUAL - * = LCS Outside Control Limits; '-' = Value Within Control Limits
 "Limits" - The "Limits" reported above (Low and High) are in units of percent (%).
 "LCS Add" - The conc. of analyte added to the SLCS sample.
 "SLCS %REC" - Laboratory Control Sample Percent Recovery
 NR - Not Reported

Single Laboratory Control Spike QC Report
 Prepared By: HydroLogic Laboratories, Inc.

Sample Id: SLCS
 Work Group Id: WG8029-2
 Run Id: R5090
 GALP Record Id: Not Reported
 Preparation Date: 08-OCT-96
 Analysis Date: 10-OCT-96
 Report Date: 24-OCT-96

Analyte	CAS No.	Sample Value	Units	Spike Conc.	Low Limit	High Limit	SLCS %REC	QUAL (1)
SW846 Methods 3520/8080								
Preparation Date: 08-OCT-96								
Analysis Date: 10-OCT-96 23:15								
Workgroup Number: WG8029								
Aldrin	309-00-2	.0295	ug/ml	.02	40	120	148	*
gamma-BHC	58-89-9	.0209	ug/ml	.02	56	123	105	-
4,4'-DDT	50-29-3	.0589	ug/ml	.05	38	127	118	-
Dieldrin	60-57-1	.0609	ug/ml	.05	52	126	122	-
Endrin	72-20-8	.0536	ug/ml	.05	56	121	107	-
Heptachlor	76-44-8	.0205	ug/ml	.02	40	131	103	-

Note:
 Technical Review By: Bob Cathel

Note:
 Report Approved By: Karen Kuoppala

(1) QUAL - * = LCS Outside Control Limits; - = Value Within Control Limits
 "Limits" - The "Limits" reported above (Low and High) are in units of percent (%).
 "LCS Add" - The conc. of analyte added to the SLCS sample.
 "SLCS %REC" - Laboratory Control Sample Percent Recovery
 NR - Not Reported

Laboratory Control Spike / Laboratory Control Spike Duplicate QC Report
 Prepared By: HydroLogic Laboratories, Inc.

Sample Id: /usr/users/seed2/pe3000/qc1
 Work Group Id: WG8041-2
 Run Id: R5053
 GALP Record Id: Not Reported
 Preparation Date: 09-OCT-96
 Analysis Date: 10-OCT-96
 Report Date: 11-OCT-96

Analyte	CAS No.	Low Limit	High Limit	RPD Limit	LCS Add	LCSD Add	Units	LCS %REC	LCSD %REC	LCS/LCSD RPD	QUAL (1)
SW846 Met. 6010 (APIX)											
Preparation Date: 09-OCT-96											
Analysis Date: 10-OCT-96 09:14											
Workgroup Number: WG8041											
Barium	7440-39-3	80	120	20	2	2	mg/L	98	96	2	---
Beryllium	7440-41-7	80	120	20	.05	.05	mg/L	99	96	3	---
Cadmium	7440-43-9	80	120	20	.05	.05	mg/L	97	94	3	---
Chromium	7440-47-3	80	120	20	.2	.2	mg/L	104	99	5	---
Cobalt	7440-48-4	80	120	20	.5	.5	mg/L	98	97	1	---
Copper	7440-50-8	80	120	20	.25	.25	mg/L	98	99	1	---
Nickel	7440-02-0	80	120	20	.5	.5	mg/L	100	99	1	---
Silver	7440-22-4	80	120	20	.05	.05	mg/L	83	80	4	---
Vanadium	7440-62-2	80	120	20	.5	.5	mg/L	99	97	2	---
Zinc	7440-66-6	80	120	20	.5	.5	mg/L	103	99	4	---

Note:
 Technical Review By: Bob Cathel

Note:
 Report Approved By: Karen Kuoppala

(1) QUAL - * = LCS Outside Control Limits; # = LCSD Outside Control Limits; @ = RPD Outside Control Limits; '-' = Value Within Control Limits
 "Limits" - The "Limits" reported above (Low, High and RPD) are in units of percent (%).
 "LCS,SD Add" - The conc. of analyte added to the LCS or LCSD sample.
 "LCS %REC" - Laboratory Control Sample Percent Recovery
 "LCSD %REC" - Laboratory Control Sample Duplicate Percent Recovery
 "LCS/LCSD RPD" - Laboratory Control Sample / Laboratory Control Sample Duplicate Relative Percent Difference
 NR - Not Reported

Laboratory Control Spike / Laboratory Control Spike Duplicate QC Report
 Prepared By: HydroLogic Laboratories, Inc.

Sample Id: LCS/LCSD Pair
 Work Group Id: WG8042-2
 Run Id: R5101
 GALP Record Id: Not Reported
 Preparation Date: 09-OCT-96
 Analysis Date: 15-OCT-96
 Report Date: 16-OCT-96

Analyte	CAS No.	Low Limit	High Limit	RPD Limit	LCS Add	LCSD Add	Units	LCS %REC	LCSD %REC	LCS/LCSD RPD	QUAL (1)
SW846 Method 7041											
Analysis Date: 15-OCT-96 14:23											
Workgroup Number: WG8042											
Antimony	7440-36-0	75	125	20	.02	.02	mg/L	86	104	19	---

Note:
 Technical Review By: Bob Cathel

Note:
 Report Approved By: Karen Kuoppala

(1) QUAL - * = LCS Outside Control Limits; # = LCSD Outside Control Limits; @ = RPD Outside Control Limits; '-' = Value Within Control Limits
 "Limits" - The "Limits" reported above (Low, High and RPD) are in units of percent (%).
 "LCS,SD Add" - The conc. of analyte added to the LCS or LCSD sample.
 "LCS %REC" - Laboratory Control Sample Percent Recovery
 "LCSD %REC" - Laboratory Control Sample Duplicate Percent Recovery
 "LCS/LCSD RPD" - Laboratory Control Sample / Laboratory Control Sample Duplicate Relative Percent Difference
 NR - Not Reported

Laboratory Control Spike / Laboratory Control Spike Duplicate QC Report
 Prepared By: HydroLogic Laboratories, Inc.

Sample Id: LCS/LCSD Pair
 Work Group Id: WG8044-2
 Run Id: R5065
 GALP Record Id: Not Reported
 Preparation Date: 09-OCT-96
 Analysis Date: 10-OCT-96
 Report Date: 10-OCT-96

Analyte	CAS No.	Low Limit	High Limit	RPD Limit	LCS Add	LCSD Add	Units	LCS %REC	LCSD %REC	LCS/LCSD RPD	QUAL (1)
SW846 Method 7060 Analysis Date: 10-OCT-96 12:37 Workgroup Number: WG8044 Arsenic	7440-38-2	75	125	20	.04	.04	mg/L	111	115	4	---

Note:
 Technical Review By: Bob Cathel

Note:
 Report Approved By: Karen Kuoppala

(1) QUAL - * = LCS Outside Control Limits; # = LCSD Outside Control Limits; @ = RPD Outside Control Limits; '-' = Value Within Control Limits
 "Limits" - The "Limits" reported above (Low, High and RPD) are in units of percent (%).
 "LCS,SD Add" - The conc. of analyte added to the LCS or LCSD sample.
 "LCS %REC" - Laboratory Control Sample Percent Recovery
 "LCSD %REC" - Laboratory Control Sample Duplicate Percent Recovery
 "LCS/LCSD RPD" - Laboratory Control Sample / Laboratory Control Sample Duplicate Relative Percent Difference
 NR - Not Reported

Laboratory Control Spike / Laboratory Control Spike Duplicate QC Report
 Prepared By: HydroLogic Laboratories, Inc.

Sample Id: LCS/LCSD Pair
 Work Group Id: WG8043-2
 Run Id: R5064
 GALP Record Id: Not Reported
 Preparation Date: 09-OCT-96
 Analysis Date: 10-OCT-96
 Report Date: 10-OCT-96

Analyte	CAS No.	Low Limit	High Limit	RPD Limit	LCS Add	LCSD Add	Units	LCS %REC	LCSD %REC	LCS/LCSD RPD	QUAL (1)
SW846 Method 7421											
Analysis Date: 10-OCT-96 10:06											
Workgroup Number: WG8043											
Lead	7439-92-1	75	125	20	.02	.02	mg/L	118	114	3	---

Note:
 Technical Review By: Bob Cathel

Note:
 Report Approved By: Karen Kuoppala

(1) QUAL - * = LCS Outside Control Limits; # = LCSD Outside Control Limits; @ = RPD Outside Control Limits; '-' = Value Within Control Limits
 "Limits" - The "Limits" reported above (Low, High and RPD) are in units of percent (%).
 "LCS,SD Add" - The conc. of analyte added to the LCS or LCSD sample.
 "LCS %REC" - Laboratory Control Sample Percent Recovery
 "LCSD %REC" - Laboratory Control Sample Duplicate Percent Recovery
 "LCS/LCSD RPD" - Laboratory Control Sample / Laboratory Control Sample Duplicate Relative Percent Difference
 NR - Not Reported

Laboratory Control Spike / Laboratory Control Spike Duplicate QC Report
 Prepared By: HydroLogic Laboratories, Inc.

Sample Id: LCS/LCSD Pair
 Work Group Id: WG8045-2
 Run Id: R5066
 GALP Record Id: Not Reported
 Preparation Date: 09-OCT-96
 Analysis Date: 10-OCT-96
 Report Date: 10-OCT-96

Analyte	CAS No.	Low Limit	High Limit	RPD Limit	LCS Add	LCSD Add	Units	LCS %REC	LCSD %REC	LCS/LCSD RPD	QUAL (1)
SW846 Method 7740											
Analysis Date: 10-OCT-96 11:31											
Workgroup Number: WG8045											
Selenium	7782-49-2	75	125	20	.01	.01	mg/L	106	88	19	---

Note:
 Technical Review By: Bob Cathel

Note:
 Report Approved By: Karen Kuoppala

(1) QUAL - * = LCS Outside Control Limits; # = LCSD Outside Control Limits; @ = RPD Outside Control Limits; ' - ' = Value Within Control Limits
 "Limits" - The "Limits" reported above (Low, High and RPD) are in units of percent (%).
 "LCS,SD Add" - The conc. of analyte added to the LCS or LCSD sample.
 "LCS %REC" - Laboratory Control Sample Percent Recovery
 "LCSD %REC" - Laboratory Control Sample Duplicate Percent Recovery
 "LCS/LCSD RPD" - Laboratory Control Sample / Laboratory Control Sample Duplicate Relative Percent Difference
 NR - Not Reported

Laboratory Control Spike / Laboratory Control Spike Duplicate QC Report
 Prepared By: HydroLogic Laboratories, Inc.

Sample Id: LCS/LCSD Pair
 Work Group Id: WG8046-2
 Run Id: R5067
 GALP Record Id: Not Reported
 Preparation Date: 09-OCT-96
 Analysis Date: 10-OCT-96
 Report Date: 10-OCT-96

Analyte	CAS No.	Low Limit	High Limit	RPD Limit	LCS Add	LCSD Add	Units	LCS %REC	LCSD %REC	LCS/LCSD RPD	QUAL (1)
SW846 Method 7841											
Analysis Date: 10-OCT-96 13:17											
Workgroup Number: WG8046											
Thallium	7440-26-0	75	125	20	.05	.05	mg/L	80	86	7	---

Note:
 Technical Review By: Bob Cathel

Note:
 Report Approved By: Karen Kuoppala

(1) QUAL - * = LCS Outside Control Limits; # = LCSD Outside Control Limits; @ = RPD Outside Control Limits; '-' = Value Within Control Limits
 "Limits" - The "Limits" reported above (Low, High and RPD) are in units of percent (%).
 "LCS,SD Add" - The conc. of analyte added to the LCS or LCSD sample.
 "LCS %REC" - Laboratory Control Sample Percent Recovery
 "LCSD %REC" - Laboratory Control Sample Duplicate Percent Recovery
 "LCS/LCSD RPD" - Laboratory Control Sample / Laboratory Control Sample Duplicate Relative Percent Difference
 NR - Not Reported

Laboratory Control Spike / Laboratory Control Spike Duplicate QC Report
 Prepared By: HydroLogic Laboratories, Inc.

Sample Id: LCS/LCSD Pair
 Work Group Id: WG8078-2
 Run Id: R5063
 GALP Record Id: Not Reported
 Preparation Date: 10-OCT-96
 Analysis Date: 10-OCT-96
 Report Date: 10-OCT-96

Analyte	CAS No.	Low Limit	High Limit	RPD Limit	LCS Add	LCSD Add	Units	LCS %REC	LCSD %REC	LCS/LCSD RPD	QUAL (1)
SW846 Method 7470 Analysis Date: 10-OCT-96 15:28 Workgroup Number: WG8078 Mercury	7439-97-6	80	120	20	.002	.002	mg/L	105	105	0	---

Note:
 Technical Review By: Bob Cathel

Note:
 Report Approved By: Karen Kuoppala

(1) QUAL - * = LCS Outside Control Limits; # = LCSD Outside Control Limits; @ = RPD Outside Control Limits; ' ' = Value Within Control Limits
 "Limits" - The "Limits" reported above (Low, High and RPD) are in units of percent (%).
 "LCS,SD Add" - The conc. of analyte added to the LCS or LCSD sample.
 "LCS %REC" - Laboratory Control Sample Percent Recovery
 "LCSD %REC" - Laboratory Control Sample Duplicate Percent Recovery
 "LCS/LCSD RPD" - Laboratory Control Sample / Laboratory Control Sample Duplicate Relative Percent Difference
 NR - Not Reported

Laboratory Control Spike / Laboratory Control Spike Duplicate QC Report
 Prepared By: HydroLogic Laboratories, Inc.

Sample Id: LCS/LCSD Pair
 Work Group Id: WG8168-2
 Run Id: R5124
 GALP Record Id: Not Reported
 Preparation Date: 17-OCT-96
 Analysis Date: 17-OCT-96
 Report Date: 18-OCT-96

Analyte	CAS No.	Low Limit	High Limit	RPD Limit	LCS Add	LCSD Add	Units	LCS %REC	LCSD %REC	LCS/LCSD RPD	QUAL (1)
SW846 Method 9012											
Analysis Date: 17-OCT-96 09:06											
Workgroup Number: WG8168											
Cyanide (tot.)	N/A	85	115	20	.25	.2	mg/L	100	120	18	-#-

Note:
 Technical Review By: Bob Cathel

Note:
 Report Approved By: Karen Kuoppala

(1) QUAL - * = LCS Outside Control Limits; # = LCSD Outside Control Limits; @ = RPD Outside Control Limits; '-' = Value Within Control Limits
 "Limits" - The "Limits" reported above (Low, High and RPD) are in units of percent (%).
 "LCS,SD Add" - The conc. of analyte added to the LCS or LCSD sample.
 "LCS %REC" - Laboratory Control Sample Percent Recovery
 "LCSD %REC" - Laboratory Control Sample Duplicate Percent Recovery
 "LCS/LCSD RPD" - Laboratory Control Sample / Laboratory Control Sample Duplicate Relative Percent Difference
 NR - Not Reported

Laboratory Control Spike / Laboratory Control Spike Duplicate QC Report
 Prepared By: HydroLogic Laboratories, Inc.

Sample Id: LCS/LCSD Pair
 Work Group Id: WG8032-2
 Run Id: R5039
 GALP Record Id: Not Reported
 Preparation Date: 08-OCT-96
 Analysis Date: 08-OCT-96
 Report Date: 08-OCT-96

Analyte	CAS No.	Low Limit	High Limit	RPD Limit	LCS Add	LCSD Add	Units	LCS %REC	LCSD %REC	LCS/LCSD RPD	QUAL (1)
SW-846, Method 9030 Preparation Date: 08-OCT-96 Analysis Date: 08-OCT-96 08:04 Workgroup Number: WG8032											
Sulfide	N/A	80	120	20	1000	1000	mg/L	97	95	2	---

Note:
 Technical Review By: Bob Cathel

Note:
 Report Approved By: Karen Kuoppala

(1) QUAL - * = LCS Outside Control Limits; # = LCSD Outside Control Limits; @ = RPD Outside Control Limits; '-' = Value Within Control Limits
 "Limits" - The "Limits" reported above (Low, High and RPD) are in units of percent (%).
 "LCS,SD Add" - The conc. of analyte added to the LCS or LCSD sample.
 "LCS %REC" - Laboratory Control Sample Percent Recovery
 "LCSD %REC" - Laboratory Control Sample Duplicate Percent Recovery
 "LCS/LCSD RPD" - Laboratory Control Sample / Laboratory Control Sample Duplicate Relative Percent Difference
 NR - Not Reported

Laboratory Control Spike / Laboratory Control Spike Duplicate QC Report
 Prepared By: HydroLogic Laboratories, Inc.

Sample Id: LCS/LCSD Pair
 Work Group Id: WG8034-2
 Run Id: R5041
 GALP Record Id: Not Reported
 Preparation Date: 08-OCT-96
 Analysis Date: 08-OCT-96
 Report Date: 08-OCT-96

Analyte	CAS No.	Low Limit	High Limit	RPD Limit	LCS Add	LCSD Add	Units	LCS %REC	LCSD %REC	LCS/LCSD RPD	QUAL (1)
SW-846, Method 9060											
Analysis Date: 08-OCT-96 10:35											
Workgroup Number: WG8034											
Total Organic Carbon	N/A	80	120	20	52.7	52.7	mg/L	99	99	0	---

Note:
 Technical Review By: Bob Cathel

Note:
 Report Approved By: Karen Kuoppala

(1) QUAL - * = LCS Outside Control Limits; # = LCSD Outside Control Limits; @ = RPD Outside Control Limits; '-' = Value Within Control Limits
 "Limits" - The "Limits" reported above (Low, High and RPD) are in units of percent (%).
 "LCS,SD Add" - The conc. of analyte added to the LCS or LCSD sample.
 "LCS %REC" - Laboratory Control Sample Percent Recovery
 "LCSD %REC" - Laboratory Control Sample Duplicate Percent Recovery
 "LCS/LCSD RPD" - Laboratory Control Sample / Laboratory Control Sample Duplicate Relative Percent Difference
 NR - Not Reported

Laboratory Control Spike / Laboratory Control Spike Duplicate QC Report
 Prepared By: HydroLogic Laboratories, Inc.

Sample Id: LCS/LCSD Pair
 Work Group Id: WG8099-2
 Run Id: R5084
 GALP Record Id: Not Reported
 Preparation Date: 09-OCT-96
 Analysis Date: 09-OCT-96
 Report Date: 11-OCT-96

Analyte	CAS No.	Low Limit	High Limit	RPD Limit	LCS Add	LCSD Add	Units	LCS %REC	LCSD %REC	LCS/LCSD RPD	QUAL (1)
SW-846, Method 9020											
Analysis Date: 09-OCT-96 08:15											
Workgroup Number: WG8099											
Total Organic Halides	N/A	80	120	20	NR	NR	mg/L	103	94	9	---

Note:
 Technical Review By: Bob Cathel

Note:
 Report Approved By: Karen Kuoppala

(1) QUAL - * = LCS Outside Control Limits; # = LCSD Outside Control Limits; @ = RPD Outside Control Limits; '-' = Value Within Control Limits
 "Limits" - The "Limits" reported above (Low, High and RPD) are in units of percent (%).
 "LCS,SD Add" - The conc. of analyte added to the LCS or LCSD sample.
 "LCS %REC" - Laboratory Control Sample Percent Recovery
 "LCSD %REC" - Laboratory Control Sample Duplicate Percent Recovery
 "LCS/LCSD RPD" - Laboratory Control Sample / Laboratory Control Sample Duplicate Relative Percent Difference
 NR - Not Reported

Matrix Spike / Matrix Spike Duplicate QC Report
 Prepared By: HydroLogic Laboratories, Inc.

Client Id: /usr/users/seed2/target/B0171
 Work Group Id: WG8087-4
 Run Id: R5087
 GALP Record Id: Not Reported
 Preparation Date: 11-OCT-96
 Analysis Date: 11-OCT-96
 Report Date: 14-OCT-96

Analyte	CAS No.	Low Limit	High Limit	RPD Limit	MS Add	MSD Add	Units	Sample Conc	MS %REC	MSD %REC	MS/MSD RPD	QUAL (1)
SW846 Method 8260 (5 ml)												
Preparation Date: 11-OCT-96												
Analysis Date: 11-OCT-96 17:59												
Workgroup Number: WG8087												
Benzene	71-43-2	76	127	13	50	50	ug/L	ND	78	78	0	----
Chlorobenzene	108-90-7	75	130	13	50	50	ug/L	ND	94	96	2	----
1,1-Dichloroethene	75-35-4	61	145	14	50	50	ug/L	ND	80	84	5	----
Toluene	108-88-3	76	125	13	50	50	ug/L	ND	80	84	5	----
Trichloroethene	79-01-6	71	120	14	50	50	ug/L	ND	88	86	2	----

Note:
 Technical Review By: Bob Cathel

Note:
 Report Approved By: Karen Kuoppala

- (1) QUAL - * = MS Outside Control Limits; # = MSD Outside Control Limits; @ = RPD Outside Control Limits; '-' = Value Within Control Limits
 (1) QUAL - ! = The sample concentration is greater than two times the MS or MSD spike conc. High analyte conc. will effect the MS/MSD recoveries.
 "Limits" - The "Limits" reported above (Low, High and RPD) are in units of percent (%).
 "MS, MSD Add" - The conc. of analyte added to the MS or MSD sample (soil results are corrected for % moisture).
 "Sample Conc" - The units are the same as those reported on the Form 1 Data Summary Report (soil results are corrected for % moisture).
 "MS %REC" - Matrix Spike Percent Recovery
 "MSD %REC" - Matrix Spike Duplicate Percent Recovery
 "MS/MSD RPD" - Matrix Spike / Matrix Spike Duplicate Relative Percent Difference
 NR - Not Reported
 ND - Analyte "Not Detected" above the method detection limit.

Matrix Spike / Matrix Spike Duplicate QC Report
 Prepared By: HydroLogic Laboratories, Inc.

Client Id: /usr/users/seed2/pe3000/qc1
 Work Group Id: WG8041-5
 Run Id: R5053
 GALP Record Id: Not Reported
 Preparation Date: 09-OCT-96
 Analysis Date: 10-OCT-96
 Report Date: 11-OCT-96

Analyte	CAS No.	Low Limit	High Limit	RPD Limit	MS Add	MSD Add	Units	Sample Conc	MS %REC	MSD %REC	MS/MSD RPD	QUAL (1)
SW846 Met. 6010 (APIX)												
Preparation Date: 09-OCT-96												
Analysis Date: 10-OCT-96 09:32												
Workgroup Number: WG8041												
Barium	7440-39-3	75	125	20	.2	2	mg/L	.062	91	90	1	----
Beryllium	7440-41-7	75	125	20	.05	.05	mg/L	ND	93	92	1	----
Cadmium	7440-43-9	75	125	20	.05	.05	mg/L	ND	88	89	1	----
Chromium	7440-47-3	75	125	20	.2	.2	mg/L	ND	96	97	1	----
Cobalt	7440-48-4	75	125	20	.5	.5	mg/L	ND	90	88	2	----
Copper	7440-50-8	75	125	20	.25	.25	mg/L	ND	87	86	1	----
Nickel	7440-02-0	75	125	20	.5	.5	mg/L	ND	90	90	0	----
Silver	7440-22-4	75	125	20	.05	.05	mg/L	ND	74	72	3	*#--
Vanadium	7440-62-2	75	125	20	.5	.5	mg/L	.014	94	93	1	----
Zinc	7440-66-6	75	125	20	.5	.5	mg/L	.0234	90	89	1	----

Note:
 Technical Review By: Bob Cathel

Note:
 Report Approved By: Karen Kuoppala

- (1) QUAL - * = MS Outside Control Limits; # = MSD Outside Control Limits; @ = RPD Outside Control Limits; '-' = Value Within Control Limits
 (1) QUAL - ! = The sample concentration is greater than two times the MS or MSD spike conc. High analyte conc. will effect the MS/MSD recoveries.
 "Limits" - The "Limits" reported above (Low, High and RPD) are in units of percent (%).
 "MS, MSD Add" - The conc. of analyte added to the MS or MSD sample (soil results are corrected for % moisture).
 "Sample Conc" - The units are the same as those reported on the Form 1 Data Summary Report (soil results are corrected for % moisture).
 "MS %REC" - Matrix Spike Percent Recovery
 "MSD %REC" - Matrix Spike Duplicate Percent Recovery
 "MS/MSD RPD" - Matrix Spike / Matrix Spike Duplicate Relative Percent Difference
 NR - Not Reported
 ND - Analyte "Not Detected" above the method detection limit.

Matrix Spike / Matrix Spike Duplicate QC Report
 Prepared By: HydroLogic Laboratories, Inc.

Client Id: Not Reported
 Work Group Id: WG8042-5
 Run Id: R5101
 GALP Record Id: Not Reported
 Preparation Date: 09-OCT-96
 Analysis Date: 14-OCT-96
 Report Date: 16-OCT-96

Analyte	CAS No.	Low Limit	High Limit	RPD Limit	MS Add	MSD Add	Units	Sample Conc	MS %REC	MSD %REC	MS/MSD RPD	QUAL (1)
SW846 Method 7041												
Analysis Date: 14-OCT-96 15:58												
Workgroup Number: WG8042												
Antimony	7440-36-0	75	125	20	.02	.02	mg/L	ND	101	91	10	----

Note:
 Technical Review By: Bob Cathel

Note:
 Report Approved By: Karen Kuoppala

- (1) QUAL - * = MS Outside Control Limits; # = MSD Outside Control Limits; @ = RPD Outside Control Limits; '-' = Value Within Control Limits
- (1) QUAL - ! = The sample concentration is greater than two times the MS or MSD spike conc. High analyte conc. will effect the MS/MSD recoveries.
- "Limits" - The "Limits" reported above (Low, High and RPD) are in units of percent (%).
- "MS, MSD Add" - The conc. of analyte added to the MS or MSD sample (soil results are corrected for % moisture).
- "Sample Conc" - The units are the same as those reported on the Form 1 Data Summary Report (soil results are corrected for % moisture).
- "MS %REC" - Matrix Spike Percent Recovery
- "MSD %REC" - Matrix Spike Duplicate Percent Recovery
- "MS/MSD RPD" - Matrix Spike / Matrix Spike Duplicate Relative Percent Difference
- NR - Not Reported
- ND - Analyte "Not Detected" above the method detection limit.

Matrix Spike / Matrix Spike Duplicate QC Report
 Prepared By: HydroLogic Laboratories, Inc.

Client Id: Not Reported
 Work Group Id: WG8044-5
 Run Id: R5065
 GALP Record Id: Not Reported
 Preparation Date: 09-OCT-96
 Analysis Date: 10-OCT-96
 Report Date: 10-OCT-96

Analyte	CAS No.	Low Limit	High Limit	RPD Limit	MS Add	MSD Add	Units	Sample Conc	MS %REC	MSD %REC	MS/MSD RPD	QUAL (1)
SW846 Method 7060												
Analysis Date: 10-OCT-96 13:11												
Workgroup Number: WG8044												
Arsenic	7440-38-2	75	125	20	.04	.04	mg/L	ND	122	119	2	----

Note:
 Technical Review By: Bob Cathel

Note:
 Report Approved By: Karen Kuoppala

- (1) QUAL - * = MS Outside Control Limits; # = MSD Outside Control Limits; @ = RPD Outside Control Limits; '-' = Value Within Control Limits
- (1) QUAL - ! = The sample concentration is greater than two times the MS or MSD spike conc. High analyte conc. will effect the MS/MSD recoveries.
- "Limits" - The "Limits" reported above (Low, High and RPD) are in units of percent (%).
- "MS, MSD Add" - The conc. of analyte added to the MS or MSD sample (soil results are corrected for % moisture).
- "Sample Conc" - The units are the same as those reported on the Form 1 Data Summary Report (soil results are corrected for % moisture).
- "MS %REC" - Matrix Spike Percent Recovery
- "MSD %REC" - Matrix Spike Duplicate Percent Recovery
- "MS/MSD RPD" - Matrix Spike / Matrix Spike Duplicate Relative Percent Difference
- NR - Not Reported
- ND - Analyte "Not Detected" above the method detection limit.

Matrix Spike / Matrix Spike Duplicate QC Report
 Prepared By: HydroLogic Laboratories, Inc.

Client Id: Not Reported
 Work Group Id: WG8043-5
 Run Id: R5064
 GALP Record Id: Not Reported
 Preparation Date: 09-OCT-96
 Analysis Date: 10-OCT-96
 Report Date: 10-OCT-96

Analyte	CAS No.	Low Limit	High Limit	RPD Limit	MS Add	MSD Add	Units	Sample Conc	MS %REC	MSD %REC	MS/MSD RPD	QUAL (1)
SW846 Method 7421 Analysis Date: 10-OCT-96 10:40 Workgroup Number: WG8043 Lead	7439-92-1	75	125	20	.02	.02	mg/L	ND	113	112	1	----

Note:
 Technical Review By: Bob Cathel

Note:
 Report Approved By: Karen Kuoppala

- (1) QUAL - * = MS Outside Control Limits; # = MSD Outside Control Limits; @ = RPD Outside Control Limits; '-' = Value Within Control Limits
- (1) QUAL - ! = The sample concentration is greater than two times the MS or MSD spike conc. High analyte conc. will effect the MS/MSD recoveries.
- "Limits" - The "Limits" reported above (Low, High and RPD) are in units of percent (%).
- "MS, MSD Add" - The conc. of analyte added to the MS or MSD sample (soil results are corrected for % moisture).
- "Sample Conc" - The units are the same as those reported on the Form 1 Data Summary Report (soil results are corrected for % moisture).
- "MS %REC" - Matrix Spike Percent Recovery
- "MSD %REC" - Matrix Spike Duplicate Percent Recovery
- "MS/MSD RPD" - Matrix Spike / Matrix Spike Duplicate Relative Percent Difference
- NR - Not Reported
- ND - Analyte "Not Detected" above the method detection limit.

Matrix Spike / Matrix Spike Duplicate QC Report
 Prepared By: HydroLogic Laboratories, Inc.

Client Id: Not Reported
 Work Group Id: WG8045-5
 Run Id: R5066
 GALP Record Id: Not Reported
 Preparation Date: 09-OCT-96
 Analysis Date: 10-OCT-96
 Report Date: 10-OCT-96

Analyte	CAS No.	Low Limit	High Limit	RPD Limit	MS Add	MSD Add	Units	Sample Conc	MS %REC	MSD %REC	MS/MSD RPD	QUAL (1)
SW846 Method 7740												
Analysis Date: 10-OCT-96 10:52												
Workgroup Number: WG8045												
Selenium	7782-49-2	75	125	20	.01	.01	mg/L	.0088	106	99	7	----

Note:
 Technical Review By: Bob Cathel

Note:
 Report Approved By: Karen Kuoppala

- (1) QUAL - * = MS Outside Control Limits; # = MSD Outside Control Limits; @ = RPD Outside Control Limits; '-' = Value Within Control Limits
 (1) QUAL - ! = The sample concentration is greater than two times the MS or MSD spike conc. High analyte conc. will effect the MS/MSD recoveries.
 "Limits" - The "Limits" reported above (Low, High and RPD) are in units of percent (%).
 "MS, MSD Add" - The conc. of analyte added to the MS or MSD sample (soil results are corrected for % moisture).
 "Sample Conc" - The units are the same as those reported on the Form 1 Data Summary Report (soil results are corrected for % moisture).
 "MS %REC" - Matrix Spike Percent Recovery
 "MSD %REC" - Matrix Spike Duplicate Percent Recovery
 "MS/MSD RPD" - Matrix Spike / Matrix Spike Duplicate Relative Percent Difference
 NR - Not Reported
 ND - Analyte "Not Detected" above the method detection limit.

Matrix Spike / Matrix Spike Duplicate QC Report
 Prepared By: HydroLogic Laboratories, Inc.

Client Id: Not Reported
 Work Group Id: WG8046-5
 Run Id: R5067
 GALP Record Id: Not Reported
 Preparation Date: 09-OCT-96
 Analysis Date: 10-OCT-96
 Report Date: 10-OCT-96

Analyte	CAS No.	Low Limit	High Limit	RPD Limit	MS Add	MSD Add	Units	Sample Conc	MS %REC	MSD %REC	MS/MSD RPD	QUAL (1)
SW846 Method 7841												
Analysis Date: 10-OCT-96 13:52												
Workgroup Number: WG8046												
Thallium	7440-26-0	75	125	20	.05	.05	mg/L	ND	63	70	11	*#--

Note:
 Technical Review By: Bob Cathel

Note:
 Report Approved By: Karen Kuoppala

- (1) QUAL - * = MS Outside Control Limits; # = MSD Outside Control Limits; @ = RPD Outside Control Limits; '-' = Value Within Control Limits
- (1) QUAL - ! = The sample concentration is greater than two times the MS or MSD spike conc. High analyte conc. will effect the MS/MSD recoveries.
- "Limits" - The "Limits" reported above (Low, High and RPD) are in units of percent (%).
- "MS, MSD Add" - The conc. of analyte added to the MS or MSD sample (soil results are corrected for % moisture).
- "Sample Conc" - The units are the same as those reported on the Form 1 Data Summary Report (soil results are corrected for % moisture).
- "MS %REC" - Matrix Spike Percent Recovery
- "MSD %REC" - Matrix Spike Duplicate Percent Recovery
- "MS/MSD RPD" - Matrix Spike / Matrix Spike Duplicate Relative Percent Difference
- NR - Not Reported
- ND - Analyte "Not Detected" above the method detection limit.

Matrix Spike / Matrix Spike Duplicate QC Report
 Prepared By: HydroLogic Laboratories, Inc.

Client Id: Not Reported
 Work Group Id: WG8078-5
 Run Id: R5063
 GALP Record Id: Not Reported
 Preparation Date: 10-OCT-96
 Analysis Date: 10-OCT-96
 Report Date: 10-OCT-96

Analyte	CAS No.	Low Limit	High Limit	RPD Limit	MS Add	MSD Add	Units	Sample Conc	MS %REC	MSD %REC	MS/MSD RPD	QUAL (1)
SW846 Method 7470 Analysis Date: 10-OCT-96 15:55 Workgroup Number: WG8078												
Mercury	7439-97-6	75	125	20	.002	.002	mg/L	ND	105	105	0	---

Note:
 Technical Review By: Bob Cathel

Note:
 Report Approved By: Karen Kuoppala

- (1) QUAL - * = MS Outside Control Limits; # = MSD Outside Control Limits; @ = RPD Outside Control Limits; '-' = Value Within Control Limits
- (1) QUAL - ! = The sample concentration is greater than two times the MS or MSD spike conc. High analyte conc. will effect the MS/MSD recoveries.
- "Limits" - The "Limits" reported above (Low, High and RPD) are in units of percent (%).
- "MS, MSD Add" - The conc. of analyte added to the MS or MSD sample (soil results are corrected for % moisture).
- "Sample Conc" - The units are the same as those reported on the Form 1 Data Summary Report (soil results are corrected for % moisture).
- "MS %REC" - Matrix Spike Percent Recovery
- "MSD %REC" - Matrix Spike Duplicate Percent Recovery
- "MS/MSD RPD" - Matrix Spike / Matrix Spike Duplicate Relative Percent Difference
- NR - Not Reported
- ND - Analyte "Not Detected" above the method detection limit.

Matrix Spike / Matrix Spike Duplicate QC Report
 Prepared By: HydroLogic Laboratories, Inc.

Client Id: Not Reported
 Work Group Id: WG8168-5
 Run Id: R5124
 GALP Record Id: Not Reported
 Preparation Date: 17-OCT-96
 Analysis Date: 17-OCT-96
 Report Date: 18-OCT-96

Analyte	CAS No.	Low Limit	High Limit	RPD Limit	MS Add	MSD Add	Units	Sample Conc	MS %REC	MSD %REC	MS/MSD RPD	QUAL (1)
SW846 Method 9012												
Analysis Date: 17-OCT-96 09:06												
Workgroup Number: WG8168												
Cyanide (tot.)	N/A	80	120	15	.25	.25	mg/L	ND	93	90	3	----

Note:
 Technical Review By: Bob Cathel

Note:
 Report Approved By: Karen Kuoppala

- (1) QUAL - * = MS Outside Control Limits; # = MSD Outside Control Limits; @ = RPD Outside Control Limits; '-' = Value Within Control Limits
 (1) QUAL - ! = The sample concentration is greater than two times the MS or MSD spike conc. High analyte conc. will effect the MS/MSD recoveries.
 "Limits" - The "Limits" reported above (Low, High and RPD) are in units of percent (%).
 "MS, MSD Add" - The conc. of analyte added to the MS or MSD sample (soil results are corrected for % moisture).
 "Sample Conc" - The units are the same as those reported on the Form 1 Data Summary Report (soil results are corrected for % moisture).
 "MS %REC" - Matrix Spike Percent Recovery
 "MSD %REC" - Matrix Spike Duplicate Percent Recovery
 "MS/MSD RPD" - Matrix Spike / Matrix Spike Duplicate Relative Percent Difference
 NR - Not Reported
 ND - Analyte "Not Detected" above the method detection limit.

Matrix Spike / Matrix Spike Duplicate QC Report
 Prepared By: HydroLogic Laboratories, Inc.

Client Id: Not Reported
 Work Group Id: WG8034-5
 Run Id: R5041
 GALP Record Id: Not Reported
 Preparation Date: 08-OCT-96
 Analysis Date: 08-OCT-96
 Report Date: 08-OCT-96

Analyte	CAS No.	Low Limit	High Limit	RPD Limit	MS Add	MSD Add	Units	Sample Conc	MS %REC	MSD %REC	MS/MSD RPD	QUAL (1)
SW-846, Method 9060 Analysis Date: 08-OCT-96 10:35 Workgroup Number: WG8034												
Total Organic Carbon	N/A	75	125	20	16	16	mg/L	1.6	101	102	1	----

Note:
 Technical Review By: Bob Cathel

Note:
 Report Approved By: Karen Kuoppala

- (1) QUAL - * = MS Outside Control Limits; # = MSD Outside Control Limits; @ = RPD Outside Control Limits; '-' = Value Within Control Limits
- (1) QUAL - ! = The sample concentration is greater than two times the MS or MSD spike conc. High analyte conc. will effect the MS/MSD recoveries.
- "Limits" - The "Limits" reported above (Low, High and RPD) are in units of percent (%).
- "MS, MSD Add" - The conc. of analyte added to the MS or MSD sample (soil results are corrected for % moisture).
- "Sample Conc" - The units are the same as those reported on the Form 1 Data Summary Report (soil results are corrected for % moisture).
- "MS %REC" - Matrix Spike Percent Recovery
- "MSD %REC" - Matrix Spike Duplicate Percent Recovery
- "MS/MSD RPD" - Matrix Spike / Matrix Spike Duplicate Relative Percent Difference
- NR - Not Reported
- ND - Analyte "Not Detected" above the method detection limit.

Matrix Spike / Matrix Spike Duplicate QC Report
 Prepared By: HydroLogic Laboratories, Inc.

Client Id: Not Reported
 Work Group Id: WG8099-6
 Run Id: R5084
 GALP Record Id: Not Reported
 Preparation Date: 02-OCT-96
 Analysis Date: 02-OCT-96
 Report Date: 11-OCT-96

Analyte	CAS No.	Low Limit	High Limit	RPD Limit	MS Add	MSD Add	Units	Sample Conc	MS %REC	MSD %REC	MS/MSD RPD	QUAL (1)
SW-846, Method 9020												
Analysis Date: 02-OCT-96 07:05												
Workgroup Number: WG8099												
Total Organic Halides	N/A	75	125	20	.103	.103	mg/L	.021	131	117	11	*---

Note:
 Technical Review By: Bob Cathel

Note:
 Report Approved By: Karen Kuoppala

- (1) QUAL - * = MS Outside Control Limits; # = MSD Outside Control Limits; @ = RPD Outside Control Limits; '-' = Value Within Control Limits
 (1) QUAL - ! = The sample concentration is greater than two times the MS or MSD spike conc. High analyte conc. will effect the MS/MSD recoveries.
 "Limits" - The "Limits" reported above (Low, High and RPD) are in units of percent (%).
 "MS, MSD Add" - The conc. of analyte added to the MS or MSD sample (soil results are corrected for % moisture).
 "Sample Conc" - The units are the same as those reported on the Form 1 Data Summary Report (soil results are corrected for % moisture).
 "MS %REC" - Matrix Spike Percent Recovery
 "MSD %REC" - Matrix Spike Duplicate Percent Recovery
 "MS/MSD RPD" - Matrix Spike / Matrix Spike Duplicate Relative Percent Difference
 NR - Not Reported
 ND - Analyte "Not Detected" above the method detection limit.

Replicate Sample QC Report
 Prepared By: HydroLogic Laboratories, Inc.

Work Group Id: WG8041-4
 Run Id: R5053
 GALP Record Id: Not Reported
 Preparation Date: 09-OCT-96
 Analysis Date: 10-OCT-96
 Report Date: 11-OCT-96

Analyte	CAS No.	Sample Conc	REP Conc	Units	RPD
SW846 Met. 6010 (APIX)					
Preparation Date: 09-OCT-96					
Analysis Date: 10-OCT-96 09:29					
Workgroup Number: WG8041					
Barium	7440-39-3	.062	.063	mg/L	2
Vanadium	7440-62-2	.014	.0138	mg/L	1
Zinc	7440-66-6	.0234	.0159	mg/L	38
SW846 Met. 6010 (Total)					
Preparation Date: 09-OCT-96					
Analysis Date: 10-OCT-96 09:29					
Workgroup Number: WG8041					
Barium	7440-39-3	.062	.063	mg/L	2
Vanadium	7440-62-2	.014	.0138	mg/L	1
Zinc	7440-66-6	.0234	.0159	mg/L	38

Note:
 Technical Review By: Bob Cathel

Note:
 Report Approved By: Karen Kuoppala

-
- | | |
|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Note | - Only analytes with concentrations above the method detection limit are reported. Some samples may be reported above without any analyte concentrations. For these samples, analytes were not detected in the sample or in the sample replicate. |
| "Sample Conc" | - The sample concentration. |
| "REP Conc" | - The replicate sample concentration. |
| "RPD" | - Relative percent difference |
| "ND" | - Not Detected |

Replicate Sample QC Report
 Prepared By: HydroLogic Laboratories, Inc.

Work Group Id: WG8045-4
 Run Id: R5066
 GALP Record Id: Not Reported
 Preparation Date: 09-OCT-96
 Analysis Date: 10-OCT-96
 Report Date: 10-OCT-96

Analyte	CAS No.	Sample Conc	REP Conc	Units	RPD
SW846 Method 7740 Analysis Date: 10-OCT-96 10:47 Workgroup Number: WG8045					
Selenium	7782-49-2	.0088	.0063	mg/L	33

Note:
 Technical Review By: Bob Cathel

Note:
 Report Approved By: Karen Kuoppala

-
- Note - Only analytes with concentrations above the method detection limit are reported. Some samples may be reported above without any analyte concentrations. For these samples, analytes were not detected in the sample or in the sample replicate.
 - "Sample Conc" - The sample concentration.
 - "REP Conc" - The replicate sample concentration.
 - "RPD" - Relative percent difference
 - "ND" - Not Detected

Replicate Sample QC Report
Prepared By: HydroLogic Laboratories, Inc.

Work Group Id: WG8034-4
Run Id: R5041
GALP Record Id: Not Reported
Preparation Date: 08-OCT-96
Analysis Date: 08-OCT-96
Report Date: 08-OCT-96

Analyte	CAS No.	Sample Conc	REP Conc	Units	RPD
SW-846, Method 9060					
Analysis Date: 08-OCT-96 10:35					
Workgroup Number: WG8034					
Total Organic Carbon	N/A	1.6	1.1	mg/L	37

Note:
Technical Review By: Bob Cathel

Note:
Report Approved By: Karen Kuoppala

Note	- Only analytes with concentrations above the method detection limit are reported. Some samples may be reported above without any analyte concentrations. For these samples, analytes were not detected in the sample or in the sample replicate.
"Sample Conc"	- The sample concentration.
"REP Conc"	- The replicate sample concentration.
"RPD"	- Relative percent difference
"ND"	- Not Detected

Replicate Sample QC Report
Prepared By: HydroLogic Laboratories, Inc.

Work Group Id: WG8099-5
Run Id: R5084
GALP Record Id: Not Reported
Preparation Date: 02-OCT-96
Analysis Date: 02-OCT-96
Report Date: 11-OCT-96

Analyte	CAS No.	Sample Conc	REP Conc	Units	RPD
SW-846, Method 9020 Analysis Date: 02-OCT-96 07:05 Workgroup Number: WG8099					
Total Organic Halides	N/A	.021	.0236	mg/L	12

Note:
Technical Review By: Bob Cathel

Note:
Report Approved By: Karen Kuoppala

Note - Only analytes with concentrations above the method detection limit are reported. Some samples may be reported above without any analyte concentrations. For these samples, analytes were not detected in the sample or in the sample replicate.

"Sample Conc" - The sample concentration.
"REP Conc" - The replicate sample concentration.
"RPD" - Relative percent difference
"ND" - Not Detected

Quanterra Incorporated
880 Riverside Parkway
West Sacramento, California 95605

916 373-5600 Telephone
916 372-1059 Fax

October 18, 1996

QUANTERRA INCORPORATED PROJECT NUMBER: **089907**

PO/CONTRACT: **S96041**

Bob Cathel
Hydrologic Labs
695 North Seventh Ave.
Brighton, CO 80601

Dear Mr. Cathel:

This report contains the analytical results for the three aqueous samples which were received under chain of custody by Quanterra Incorporated on 08 October 1996.

The case narrative is an integral part of this report.

If you have any questions, please feel free call.

Sincerely,



Robert Hrabak
Project Manager
Advanced Technology

RH/ct

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QUANTERRA INCORPORATED PROJECT NUMBER 089907

Case Narrative

Quanterra's Quality Assurance Program

Sample Description Information

Chain of Custody Documentation

2,3,7,8-TCDD- Method 8280

Includes Samples: 1 through 3

Method Blank Sheets

Sample Data Sheets

Laboratory Control Sample Report

Organophosphorus Pesticides - Method 8140

Includes Samples: 1 through 3

Sample Data Sheets

Method Blank

Single Control Sample

Duplicate Control Sample

CASE NARRATIVE

QUANTERRA INCORPORATED PROJECT NUMBER 089907

Detection limits for dioxins and furans are reported on a sample specific basis and all results are recovery corrected per the isotope dilution technique.

Please note that your samples were received at 10 degrees Celsius.

There were no anomalies associated with this report.

QUANTERRA INCORPORATED QUALITY CONTROL PROGRAM

Quanterra has implemented an extensive Quality Control (QC) program to ensure the production of scientifically sound, legally defensible data of known documentable quality. This QC program is based upon requirements in "Test Methods for Evaluating Solid Waste", USEPA SW-846, Third Edition. It applies whenever SW-846 analytical methods are used. It also applies in whole or in part whenever project requirements fail to specify some aspect of QC practices described here. It does not apply when other well defined QC programs (e.g. CLP or CLP-like) are specified. This is Quanterra's base QC program for environmental analysis.

Definitions:

Quality Control Batch. The quality control (QC) batch is a set of up to 20 field samples plus associated laboratory QC samples that are similar in composition (matrix) and that are processed within the same time period with the same reagent and standard lots.

Surrogate. A surrogate (or internal standard) is an organic compound similar in chemical behavior to the target analyte, but not normally found in environmental samples. Surrogates (or IS) are added to all samples in a batch to monitor the effects of both the matrix and the analytical process on accuracy.

Method Blank. A method blank (MB) is a control sample prepared using the same reagents used for the samples. As part of the QC batch, it accompanies the samples through all steps of the sample extraction and cleanup procedure. The method blank is used to monitor the level of contamination introduced to a batch of samples as a result of processing in the laboratory.

Laboratory Control Sample. A laboratory control sample (LCS) is prepared using a well characterized matrix (e.g., reagent water or Ottawa sand) that is spiked with known amounts of representative analytes. Alternate matrices (e.g., glass beads) may be used for soil analyses when Ottawa sand is not appropriate. As part of a QC batch, it accompanies the samples through all steps of the sample extraction and cleanup process. The LCS is used to monitor the accuracy of the analytical process independent of possible interference effects due to sample matrix.

Duplicate Control Sample. Duplicate laboratory control samples (DCS) consists of a pair of LCSs analyzed within the same QC batch to monitor precision and accuracy independent of sample matrix effects.

SAMPLE DESCRIPTION INFORMATION
for
Hydrologic Laboratories

Lab ID	Client ID	Matrix	Sampled Date	Time	Received Date
089907-0001-MB	Method Blank	AQUEOUS			08 OCT 96
089907-0001-SA	L3410-1	AQUEOUS	02 OCT 96		08 OCT 96
089907-0002-SA	L3410-3	AQUEOUS	02 OCT 96		08 OCT 96
089907-0003-SA	L3410-5	AQUEOUS	02 OCT 96		08 OCT 96

546041

HYDROLOGIC LABORATORIES, INC

OUTSIDE CONTRACTOR ANALYSIS REQUEST & CHAIN-OF-CUSTODY

Analytical Lab: Quanterra
 Address: 880 Riverside Parkway Phone: Alto 373-5600
West Sacramento, CA Contact: Robert Hrabek
95605

Results Required By: 10-18-96

Please analyze the following samples as described below:

No. of Samples Shipped: 3

Project No.	Sample No.	Date Sampled	Analysis Requested
<u>L3410</u>	<u>L3410-1</u>	<u>10-2-96</u>	<u>Dioxin 2,3,7,8, TCDD, PCB, 8140</u>
<u>↓</u>	<u>L3410-3</u>	<u>↓</u>	<u>↓</u>
<u>↓</u>	<u>L3410-5</u>	<u>↓</u>	<u>↓</u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>

Samples need in good condition. need 10/18/96

RUSH SERVICES (FOR EXTRA FEE): YES NO

IF ANY QUESTIONS OR PROBLEMS CONTACT:
PHONE NO.: Bob Cathel
(303) 659-0497

PLEASE FAX THE RESULTS TO:
FAX NO.: Bob Cathel
(303) 659-5064

PLEASE MAIL WRITTEN RESULTS TO: Bob Cathel

SAMPLES RELINQUISHED BY: Allyson Thomas
 METHOD OF SHIPMENT: Fed Ex DATE: 10-7-96
 SAMPLES RECEIVED BY: M. Carter DATE: 10/8/96 16:20
 CUSTODY SEAL INTACT: YES NO NA

2,3,7,8-TCDD

LOW RESOLUTION

Client Name: Hydrologic Laboratories

Client ID: Method Blank

Lab ID: 089907-0001-MB

Matrix: AQUEOUS

Authorized: 08 OCT 96

Sampled: NA
Prepared: 14 OCT 96

Received: NA
Analyzed: 17 OCT 96

Sample Amount 1.0 L
Column Type SP-2331

Parameter	Result	Units	Detection Limit	Data Qualifiers
Dioxins				
2,3,7,8-TCDD	ND	ng/L	0.57	
	% Recovery			
13C-2,3,7,8-TCDD	91			

ND = Not detected
NA = Not applicable

Reported By: Teri Stone

Approved By: Robert Hrabak

The cover letter is an integral part of this report.
Rev 230787

2,3,7,8-TCDD
LOW RESOLUTION

Client Name: Hydrologic Laboratories
Client ID: L3410-1
Lab ID: 089907-0001-SA
Matrix: AQUEOUS
Authorized: 08 OCT 96

Sampled: 02 OCT 96
Prepared: 14 OCT 96

Received: 08 OCT 96
Analyzed: 17 OCT 96

Sample Amount 1.05 L
Column Type SP-2331

Parameter	Result	Units	Detection Limit	Data Qualifiers
Dioxins				
2,3,7,8-TCDD	ND	ng/L	0.58	
	% Recovery			
13C-2,3,7,8-TCDD	88			

ND = Not detected
NA = Not applicable

Reported By: Teri Stone

Approved By: Robert Hrabak

The cover letter is an integral part of this report.
Rev 230787



Environmental
Services

2,3,7,8-TCDD
LOW RESOLUTION

Client Name: Hydrologic Laboratories
Client ID: L3410-3
Lab ID: 089907-0002-SA
Matrix: AQUEOUS
Authorized: 08 OCT 96

Sampled: 02 OCT 96
Prepared: 14 OCT 96

Received: 08 OCT 96
Analyzed: 17 OCT 96

Sample Amount 1.02 L
Column Type SP-2331

Parameter	Result	Units	Detection Limit	Data Qualifiers
Dioxins				
2,3,7,8-TCDD	ND	ng/L	0.62	
	% Recovery			
13C-2,3,7,8-TCDD	86			

ND = Not detected
NA = Not applicable

Reported By: Teri Stone

Approved By: Robert Hrabak

The cover letter is an integral part of this report.
Rev 230787

2,3,7,8-TCDD
LOW RESOLUTION

Client Name: Hydrologic Laboratories
Client ID: L3410-5
Lab ID: 089907-0003-SA
Matrix: AQUEOUS
Authorized: 08 OCT 96

Sampled: 02 OCT 96
Prepared: 14 OCT 96

Received: 08 OCT 96
Analyzed: 17 OCT 96

Sample Amount 1.04 L
Column Type SP-2331

Parameter	Result	Units	Detection Limit	Data Qualifiers
Dioxins				
2,3,7,8-TCDD	ND	ng/L	0.65	
	% Recovery			
13C-2,3,7,8-TCDD	85			

ND = Not detected
NA = Not applicable

Reported By: Teri Stone

Approved By: Robert Hrabak

The cover letter is an integral part of this report.
Rev 230787



Environmental
Services

Organophosphorus Pesticides

Method 8140

Client Name: Hydrologic Laboratories

Client ID: L3410-1

Lab ID: 089907-0001-SA

Matrix: AQUEOUS

Authorized: 08 OCT 96

Sampled: 02 OCT 96

Prepared: 09 OCT 96

Received: 08 OCT 96

Analyzed: 11 OCT 96

Parameter	Result	Units	Reporting Limit
Azinphos-methyl (Guthion)	ND	ug/L	1.0
Bolstar	ND	ug/L	1.0
Dursban (Chlorpyrifos)	ND	ug/L	1.0
Coumaphos	ND	ug/L	1.0
Demeton O&S	ND	ug/L	1.0
Diazinon	ND	ug/L	1.0
Dichlorvos	ND	ug/L	2.0
Disyston (Disulfoton)	ND	ug/L	1.0
Ethoprop	ND	ug/L	1.0
Fensulfothion	ND	ug/L	1.0
Baytex (Fenthion)	ND	ug/L	1.0
Merphos	ND	ug/L	1.0
Phosdrin (Mevinphos)	ND	ug/L	1.0
Naled	ND	ug/L	2.0
Methyl parathion	ND	ug/L	1.0
Phorate (Thimet)	ND	ug/L	1.0
Ronnel	ND	ug/L	1.0
Tetrachlorvinphos	ND	ug/L	1.0
Tokuthion (Prothiophos)	ND	ug/L	1.0
Trichloronate	ND	ug/L	1.0
Surrogate	Recovery		
Ethion	102	%	

ND = Not detected
NA = Not applicable

Reported By: Kirby Garrett

Approved By: Jon Edmondson

The cover letter is an integral part of this report.

Rev 230787

Organophosphorus Pesticides

Method 8140

Client Name: Hydrologic Laboratories

Client ID: L3410-3

Lab ID: 089907-0002-SA

Matrix: AQUEOUS

Authorized: 08 OCT 96

Sampled: 02 OCT 96

Prepared: 09 OCT 96

Received: 08 OCT 96

Analyzed: 11 OCT 96

Parameter	Result	Units	Reporting Limit
Azinphos-methyl (Guthion)	ND	ug/L	1.0
Bolstar	ND	ug/L	1.0
Dursban (Chlorpyrifos)	ND	ug/L	1.0
Coumaphos	ND	ug/L	1.0
Demeton O&S	ND	ug/L	1.0
Diazinon	ND	ug/L	1.0
Dichlorvos	ND	ug/L	2.0
Disyston (Disulfoton)	ND	ug/L	1.0
Ethoprop	ND	ug/L	1.0
Fensulfothion	ND	ug/L	1.0
Baytex (Fenthion)	ND	ug/L	1.0
Merphos	ND	ug/L	1.0
Phosdrin (Mevinphos)	ND	ug/L	1.0
Naled	ND	ug/L	2.0
Methyl parathion	ND	ug/L	1.0
Phorate (Thimet)	ND	ug/L	1.0
Ronnel	ND	ug/L	1.0
Tetrachlorvinphos	ND	ug/L	1.0
Tokuthion (Prothiophos)	ND	ug/L	1.0
Trichloronate	ND	ug/L	1.0
Surrogate	Recovery		
Ethion	94	%	

ND = Not detected
NA = Not applicable

Reported By: Kirby Garrett

Approved By: Jon Edmondson

The cover letter is an integral part of this report.

Rev 230787

Organophosphorus Pesticides

Method 8140

Client Name: Hydrologic Laboratories

Client ID: L3410-5

Lab ID: 089907-0003-SA

Matrix: AQUEOUS

Authorized: 08 OCT 96

Sampled: 02 OCT 96

Prepared: 09 OCT 96

Received: 08 OCT 96

Analyzed: 11 OCT 96

Parameter	Result	Units	Reporting Limit
Azinphos-methyl (Guthion)	ND	ug/L	1.0
Bolstar	ND	ug/L	1.0
Dursban (Chlorpyrifos)	ND	ug/L	1.0
Coumaphos	ND	ug/L	1.0
Demeton O&S	ND	ug/L	1.0
Diazinon	ND	ug/L	1.0
Dichlorvos	ND	ug/L	2.0
Disyston (Disulfoton)	ND	ug/L	1.0
Ethoprop	ND	ug/L	1.0
Fensulfothion	ND	ug/L	1.0
Baytex (Fenthion)	ND	ug/L	1.0
Merphos	ND	ug/L	1.0
Phosdrin (Mevinphos)	ND	ug/L	1.0
Naled	ND	ug/L	2.0
Methyl parathion	ND	ug/L	1.0
Phorate (Thimet)	ND	ug/L	1.0
Ronnel	ND	ug/L	1.0
Tetrachlorvinphos	ND	ug/L	1.0
Tokuthion (Prothiophos)	ND	ug/L	1.0
Trichloronate	ND	ug/L	1.0
Surrogate	Recovery		
Ethion	99	%	

ND = Not detected
 NA = Not applicable

Reported By: Kirby Garrett

Approved By: Jon Edmondson

The cover letter is an integral part of this report.
 Rev 230787

QC LOT ASSIGNMENT REPORT
Semivolatile Organics by GC

Laboratory Sample Number	QC Matrix	QC Category	QC Lot Number (DCS)	QC Run Number (SCS/BLANK)
089907-0001-SA	AQUEOUS	8140-SW-A	09 OCT 96-11A	09 OCT 96-11A
089907-0002-SA	AQUEOUS	8140-SW-A	09 OCT 96-11A	09 OCT 96-11A
089907-0003-SA	AQUEOUS	8140-SW-A	09 OCT 96-11A	09 OCT 96-11A

METHOD BLANK REPORT
Semivolatile Organics by GC

Analyte	Result	Units	Reporting Limit
Test: 8140-SW-A			
Matrix: AQUEOUS			
QC Lot: 09 OCT 96-11A QC Run: 09 OCT 96-11A			
Azinphos-methyl (Guthion)	ND	ug/L	1.0
Bolstar	ND	ug/L	1.0
Dursban (Chlorpyrifos)	ND	ug/L	1.0
Coumaphos	ND	ug/L	1.0
Demeton O&S	ND	ug/L	1.0
Diazinon	ND	ug/L	1.0
Dichlorvos	ND	ug/L	2.0
Disyston (Disulfoton)	ND	ug/L	1.0
Ethoprop	ND	ug/L	1.0
Fensulfothion	ND	ug/L	1.0
Baytex (Fenthion)	ND	ug/L	1.0
Merphos	ND	ug/L	1.0
Phosdrin (Mevinphos)	ND	ug/L	1.0
Naled	ND	ug/L	2.0
Methyl parathion	ND	ug/L	1.0
Phorate (Thimet)	ND	ug/L	1.0
Ronnel	ND	ug/L	1.0
Tetrachlorvinphos	ND	ug/L	1.0
Tokuthion (Prothiophos)	ND	ug/L	1.0
Trichloronate	ND	ug/L	1.0

SINGLE CONTROL SAMPLE REPORT
Semivolatile Organics by GC

Analyte	Concentration		Accuracy(%)	
	Spiked	Measured	SCS	Limits
Category: 8140-SW-A				
Matrix: AQUEOUS				
QC Lot: 09 OCT 96-11A QC Run: 09 OCT 96-11A				
Concentration Units: ug/L				
Ethion	2.50	2.37	95	67-117

Calculations are performed before rounding to avoid round-off errors in calculated results.



Environmental
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DUPLICATE CONTROL SAMPLE REPORT
Semivolatile Organics by GC

Analyte	Concentration		Measured DCS2	AVG	Accuracy Average(%)		Precision (RPD)	
	Spiked	DCS1			DCS	Limits	DCS	Limit
Category: 8140-SW-A								
Matrix: AQUEOUS								
QC Lot: 09 OCT 96-11A								
Concentration Units: ug/L								
Dursban (Chlorpyrifos)	2.5	2.5	2.5	2.5	99	60-140	1.3	40.
Diazinon	2.5	2.4	2.4	2.4	96	53-115	0.1	18.
Phosdrin (Mevinphos)	2.5	2.6	2.6	2.6	104	60-140	0.8	40.
Phorate (Thimet)	2.5	2.4	2.3	2.3	93	46-107	5.3	25.
Tetrachlorvinphos	2.5	2.3	2.4	2.4	95	60-140	3.2	40.
Ethion	2.5	2.44	2.32	2.38	95	67-117	5.0	

Calculations are performed before rounding to avoid round-off errors in calculated results.

APPENDIX III
DATA ASSESSMENT

DATA ASSESSMENT
CANNON AIR FORCE BASE
QUARTERLY MONITORING

Data for the third quarterly sampling event (October 2, 1996) at Cannon Air Force Base was reviewed and evaluated as specified in the Final Work Plan (FEC, February 1996). The following paragraphs discuss specific findings of the data review process for sample CAFB-100296-MWO-1.

VOCs. The sample was analyzed within the required 14-day hold time for volatile organic compounds via SW-846 8260. VOCs were not detected in the method blank analyzed with the sample. Surrogate percent recoveries for p-bromofluorobenzene, dibromofluoromethane, and toluene were within QC limits. Percent recoveries and relative percent differences obtained in the laboratory control spike and MS/MSD for analyses via SW-846 8260 were within QC limits, demonstrating adequate analytical precision and accuracy. VOC results are usable without qualification.

SVOCs. The sample was extracted within the required 7-day hold time for semivolatile organic compounds via SW-846 8270. Surrogate percent recoveries were within QC limits. The associated method blank contained bis-2-ethylhexyl phthalate at a concentration of 10 ug/l; however, this compound was not detected in sample CAFB-100296-MWO-1 and qualification of results was not necessary. Percent recoveries of 4-chloro-3-methylphenol, 4-nitrophenol, pentachlorophenol, phenol, and pyrene in the laboratory control sample exceeded the upper QC limits, indicating the potential for high bias. Associated results were reported as non-detects and did not require qualification. Results for SVOCs are usable without qualification.

Pesticides/PCBs. The sample was extracted within the required 7-day holding time for pesticides/PCBs via SW-846 8080. Neither pesticides nor PCBs were detected in the method blank associated with the sample. Surrogate percent recoveries were within QC limits. Percent recovery of aldrin in the laboratory control sample exceeded the upper QC limit. Associated results were reported as non-detects and did not require qualification due to the potential high bias indicated by the high recovery. Results for pesticides/PCBs are usable without qualification.

Herbicides. The sample was extracted within the required 7-day holding time for extraction via SW-846 8150. Percent recovery of the surrogate DCAA was acceptable. Results for herbicide compounds were reported as non-detected and are usable without qualification.

Metals. Sample CAFB-100296-MWO-1 was analyzed for metal analytes within the required holding time. The method blank analyzed with this sample contained barium at a concentration of 0.0006 mg/L. The detected concentration of barium in the sample did not require qualification. Percent recoveries and RPDs in the laboratory control sample and MS/MSD sample were within QC limits for all metal analytes (MS and MSD percent recoveries for silver were slightly below acceptable QC limits; the result for silver was not qualified since recovery of silver was within QC limits in the control sample). Results for metal analytes are usable without qualification.

Dioxin (2,3,7,8-TCDD). The sample was extracted 12 days after sample collection, exceeding the required holding time of 7 days for dioxin analysis via SW-846 8280. Surrogate percent recovery and recovery in the laboratory control sample were within QC limits. The result for dioxin in sample CAFB-100296-MWO-1 was reported as non-detected and is usable without qualification.

Organophosphorous Pesticides. The sample was extracted within the 7-day requirement for analysis via SW-846 8140. Surrogate percent recovery and recovery in the laboratory control sample/duplicate control sample were within QC limits. Results for organophosphorous pesticides in sample CAFB-100296-MWO-1 were reported as non-detected and are usable without qualification.

Total Organic Carbon (TOC). The sample was analyzed within the holding time for TOC. TOC was detected in the method blank at 0.3 mg/L. Percent recoveries in the LCS/LCSD and MS/MSD were within QC limits. The TOC result reported for sample CAFB-100296-MWO-1 is usable without qualification.

Total Organic Halides (TOX). Sample CAFB-100296-MWO-1 was analyzed within the required holding time for TOX. TOX were not detected in the method blank associated with this sample. The percent recovery of TOX in the MSD was above QC limits. LCS and LCSD percent recoveries for TOX were within QC limits. The result for TOX in sample CAFB-100296-MWO-1 is usable without qualification.

Cyanide, Sulfide. For sample CAFB-100296-MWO-1, the holding time for cyanide analysis was exceeded by one day. The holding time for sulfide was met. Neither cyanide or sulfide was detected in associated method blanks. LCS/LCSD percent recoveries for sulfide were within QC limits. Though recovery of cyanide was high in the LCSD, the reported non-detected result in the sample did not require qualification. Results for cyanide and sulfide indicate the absence of these constituents in the sample. The results are usable without qualification.

CONTENTS

EXECUTIVE SUMMARY ES-1

TABLES

- 1 Summary of Quarterly Groundwater Sampling for Monitoring Well Q, First Quarter 1996, Groundwater Sample Summary, Cannon Air Force Base, Clovis, New Mexico
- 2 Summary of Quarterly Groundwater Sampling for Monitoring Well Q, Second Quarter 1996, Groundwater Sample Summary, Cannon Air Force Base, Clovis, New Mexico
- 3 Summary of Quarterly Groundwater Sampling for Monitoring Well Q, Third Quarter 1996, Groundwater Sample Summary, Cannon Air Force Base, Clovis, New Mexico

APPENDIXES

- I ASSESSMENT MONITORING QUARTERLY REPORT FOR AUGUST 28, 1996
- II ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES COLLECTED AUGUST 28, 1996
- III CASE NARRATIVES FOR GROUNDWATER SAMPLES COLLECTED AUGUST 28, 1996
- IV GROUNDWATER SAMPLING FORM FOR AUGUST 28, 1996

EXECUTIVE SUMMARY

This report presents data from the groundwater sampling of Monitoring Well Q (MW-Q) at Landfill Number 5, Cannon Air Force Base, Clovis, New Mexico. MW-Q is located upgradient of Landfill 5.

Table 1 summarizes the data from the first quarter 1996 groundwater samples, collected March 21, 1996. Table 2 summarizes the data from the second quarter 1996 groundwater samples, collected May 22, 1996. Table 3 summarizes the data from the third quarter 1996 groundwater samples collected August 28, 1996. The Assessment Monitoring Quarterly Report for MW-Q, presented in appropriate New Mexico Environmental Department data forms, is provided in Appendix I. The results for each analytical method from ARDL, Inc., are provided in Appendix II. The ARDL Case Narratives for organic and inorganic analyses are provided in Appendix III. The Groundwater Sampling Form from the third quarter sampling event, which contains the field data collected during well purging activities, is provided in Appendix IV.

MW-Q was sampled by Harding Lawson Associates (HLA) in accordance with procedures outlined in HLA's work plan titled "Final Work Plan: Landfill No. 5 Monitoring Wells, Cannon Air Force Base, Clovis, New Mexico" dated January 25, 1996. The well was sampled for the 40 Code of Federal Regulations (CFR), Part 264, Appendix IX analytes listed below:

- Volatile organic compounds, SW-846 Method 8260
- Semivolatile organic compounds, SW-846 Method 8270
- Dioxins (2,3,7,8-TCDD), SW-846 Method 8280
- Polynuclear aromatic hydrocarbons, SW-846 Method 8310
- Pesticides/polychlorinated biphenyls, SW-846 Method 8080
- Herbicides, SW-846 Method 8150
- Metals, SW-846 Method 6010 and 7000
- Cyanide, SW-846 Method 9012
- Sulfide, SW-846 Method 9030

Executive Summary

- Total organic carbon, SW-846 Method 9060
- Total organic halides, SW-846 Method 9020

MW-Q was sampled for investigative and duplicate analyses of the Appendix IX parameters; a third set of samples, without total organic carbon and total organic halides, was collected and sent to the U.S. Army Corps of Engineers, Missouri River Division laboratory as an independent quality control sample. As part of the quality assurance/quality control (QA/QC) procedures for this sampling event, a trip blank and matrix spike-matrix spike duplicate (MS/MSD) sample were also analyzed for the Appendix IX parameters.

Concentrations of detected Appendix IX analytes from the third quarter sampling event are summarized in Table 3. The analytical results are very similar to the data collected from the first and second quarter sampling events. Chemical data from MW-Q indicate that no organic contaminants were detected above method detection limits. Other analytes detected in the sample include metals commonly found in groundwater.

A full data validation was performed on the first quarter data set to provide a baseline evaluation of the analytical laboratory's performance for future data submissions. The second quarter data set was validated only for organochlorine pesticides and polychlorinated biphenyls. A review of case narratives and QC data was performed on the third quarter data set. The QC review found that QA/QC procedures were implemented properly according to analytical method operating procedures. No discrepancies or errors were detected that would compromise the quality of the data for their intended use.

**Table 1: Summary of Quarterly Groundwater Sampling for Monitoring Well Q
First Quarter 1996, Groundwater Sample Summary
Cannon Air Force Base, Clovis, New Mexico**

Analyte-Method	Well/Sample ID:	CAF-B-MWQ-032196-1*	CAF-B-MWQ-032196-2#	Reporting Limit
	Sample Date:	March 21, 1996 Concentration	March 21, 1996 Concentration	
Arsenic - (7061)		0.0031 mg/l	0.0034 mg/l	0.00050 mg/l
Barium - (6010)		0.054 mg/l	0.053 mg/l	0.01 mg/l
Copper - (6010)		0.0061 mg/l U	ND	0.0050 mg/l
Selenium - (7741)		0.0052 mg/l	0.0052 mg/l	0.00050 mg/l
Vanadium - (6010)		0.017 mg/l	0.017 mg/l	0.0050 mg/l
TOC - (9060)		ND	NA	1.0 mg/l
TOX - (9020)		ND	NA	0.010 mg/l
Methylene chloride - (8260)		2.7 µg/l BJU	3.0 µg/l BJU	0.36 µg/l
SVOCs - (8270)		ND	ND	Varies
PAHs - (8310)		ND	ND	Varies
Organochlorine pesticides/PCBs - (8080)		ND	ND	Varies
Herbicides - (8150)		ND	ND	Varies
Dioxin-2,3,7,8-TCDD (8280)		ND	ND	Varies
Cyanide (9012)		ND	ND	0.010 mg/l
Sulfide (9030)		ND	ND	1.0 mg/l

B Analyte detected in blank sample
 J Estimated concentration
 mg/l Milligrams per liter
 NA Not analyzed
 ND Not detected
 PAH Polynuclear aromatic hydrocarbon
 PCB Polychlorinated biphenyl
 SVOC Semivolatile organic compound
 TCDD Tetrachloro dibenzo-p-dioxin

TOC Total organic carbon
 TOX Total organic halides
 U Not detected
 µg/l Micrograms per liter

* Groundwater field sample
 # Groundwater field duplicate

**Table 2: Summary of Quarterly Groundwater Sampling for Monitoring Well Q
Second Quarter 1996, Groundwater Sample Summary
Cannon Air Force Base, Clovis, New Mexico**

Analyte-Method	Well/Sample ID:	CAFB-MWQ-052296-1*	CAFB-MWQ-052296-2#	Reporting Limit
	Sample Date:	May 22, 1996 Concentration	May 22, 1996 Concentration	
Arsenic - (7061)		0.0041 mg/l	0.0041 mg/l	0.00050 mg/l
Barium - (6010)		0.034mg/l	0.034 mg/l	0.01 mg/l
Lead - (7421)		ND	0.0042 mg/l	0.0040 mg/l
Selenium - (7741)		0.0061 mg/l	0.0059 mg/l	0.00050 mg/l
Vanadium - (6010)		0.02 mg/l	0.02 mg/l	0.0050 mg/l
TOC - (9060)		ND	ND	1.0 mg/l
TOX - (9020)		ND	0.012	0.010 mg/l
Methylene chloride - (8260)		10.7 µg/l B	10.5 µg/l B	0.36 µg/l
SVOCs - (8270)		ND	ND	Varies
PAHs - (8310)		ND	ND	Varies
Organochlorine pesticides/PCBs - (8080)		ND	ND	Varies
Herbicides - (8150)		ND	ND	Varies
Dioxin-2,3,7,8-TCDD (8280)		ND	ND	Varies
Cyanide (9012)		ND	ND	0.010 mg/l
Sulfide (9030)		ND	ND	1.0 mg/l

B Analyte detected in blank sample
 mg/l Milligrams per liter
 ND Not detected
 PAH Polynuclear aromatic hydrocarbon
 PCB Polychlorinated biphenyl
 SVOC Semivolatile organic compound
 TCDD Tetrachloro dibenzo-p-dioxin

TOX Total organic halides
 µg/l Micrograms per liter

* Groundwater field sample
 # Groundwater field duplicate

**Table 3: Summary of Quarterly Groundwater Sampling for Monitoring Well Q
Third Quarter 1996, Groundwater Sample Summary
Cannon Air Force Base, Clovis, New Mexico**

Analyte-Method	Well/Sample ID:	CAFB-MWQ-032896-1*	CAFB-MWQ-032896-2#	Reporting Limit
	Sample Date:	August 28, 1996 Concentration	August 28, 1996 Concentration	
Arsenic - (7061)		0.0038 mg/l	0.0037 mg/l	0.00050 mg/l
Barium - (6010)		0.034mg/l	0.034 mg/l	0.01 mg/l
Lead - (7421)		0.0020 mg/l	0.0024 mg/l	0.0010 mg/l
Selenium - (7741)		0.0062 mg/l	0.0059 mg/l	0.00050 mg/l
Vanadium - (6010)		0.023 mg/l	0.023 mg/l	0.0050 mg/l
TOC - (9060)		ND	NA	1.0 mg/l
TOX - (9020)		0.012	NA	0.010 mg/l
VOCs - (8260)		ND	ND	Varies
SVOCs - (8270)		ND	ND	Varies
PAHs - (8310)		ND	ND	Varies
Organochlorine pesticides/PCBs - (8080)		ND	ND	Varies
Herbicides - (8150)		ND	ND	Varies
Dioxin-2,3,7,8-TCDD (8280)		ND	ND	Varies
Cyanide (9012)		ND	ND	0.010 mg/l
Sulfide (9030)		ND	ND	1.0 mg/l

B Analyte detected in blank sample
 mg/l Milligrams per liter
 NA Not analyzed
 ND Not detected
 PAH Polynuclear aromatic hydrocarbon
 PCB Polychlorinated biphenyl
 SVOC Semivolatile organic compound
 TCDD Tetrachloro dibenzo-p-dioxin

TOX Total organic halides
 µg/l Micrograms per liter

* Groundwater field sample
 # Groundwater field duplicate

Appendix I

**ASSESSMENT MONITORING QUARTERLY REPORT
AUGUST 28, 1996**

ASSESSMENT MONITORING QUARTERLY REPORT

Facility Name: Cannon Air Force Base, Landfill No. 5, Solid Waste Management
Unit No. 113, Installation Restoration Program No. LF-5

EPA ID. No.: NM7572124454

MRD LIMS No.: 3593

Well No.: MW-Q

Sample Collection by: Jeffrey Minchak and Leonard Stockton - HLA, Albuquerque

Laboratory Name: ARDL, Inc.
P.O. Box 1566, Mt. Vernon Airport, Rt. 15E,
Mt. Vernon, IL 62864

Date Sampled: August 28, 1996

Time Sampled: 1310-1341

Laboratory Sample ID. No.: 300309

Date Received by Laboratory: August 31, 1996

ASSESSMENT MONITORING QUARTERLY REPORT

NEW MEXICO ENVIRONMENT DEPARTMENT
 HAZARDOUS & RADIOACTIVE MATERIALS BUREAU
 525 CAMINO DE LOS MARQUEZ, SUITE 4
 SANTA FE, NM 87502

This set of data sheets is for use by all facilities in assessment monitoring (20 NMAC 4.1, Subpart VI, Section 265.93(d)(4), (5) and (7)(e) and (f), and Section 265.94 (b).

FACILITY NAME Cannon Air Force Base EPA I.D. # NM7572124454
 WELL NUMBER MW-Q SAMPLE COLLECTION BY Harding Lawson Associates
 LABORATORY NAME ARDL, Inc., Mt. Vernon, IL DATE SAMPLED August 28, 1996
 TIME SAMPLED 1310-1341 DATE RECEIVED BY LAB. August 31, 1996

PARAMETERS	STORET CODE	UNITS	VALUE	DATE ANALYZED
Elevation of G.Water	71993	ft.	<u>3,991.08</u>	<u>8/28/96</u>
Well Depth	N/A	ft.	<u>297.79</u>	<u>8/28/96</u>
Well Casing Volume	N/A	gal.	<u>14.3</u>	<u>8/28/96</u>
Pump Rate	N/A	gal/min	<u>0.9</u>	<u>8/28/96</u>
Pump Period	72004	min.	<u>80</u>	<u>8/28/96</u>
Volume Evacuated	73675	gal.	<u>72</u>	<u>8/28/96</u>
Sampler Material	N/A	N/A	<u>tubing</u>	N/A

Well Sampling Method: Dedicated pneumatic pump

Assessment Monitoring Quarterly Report cont.

Well Number: MW-Q

Facility Name Cannon Air Force Base

INDICATOR PARAMETERS

PARAMETERS	STORET CODE	UNITS	VALUE	DETECTION LIMIT	DATE ANALYZED	METHOD USED
pH	00400	S.U.	<u>9.55</u>	<u>0.01</u>	<u>8/28/96</u>	
	00400	S.U.	<u>9.49</u>	<u>0.01</u>	<u>8/28/96</u>	Field Instrument
	00400	S.U.	<u>9.50</u>	<u>0.01</u>	<u>8/28/96</u>	
	00400	S.U.	<u>9.50</u>	<u>0.01</u>	<u>8/28/96</u>	
Specific Conductivity	00095	umhos/cm	<u>781</u>	<u>10</u>	<u>8/28/96</u>	
	00095	umhos/cm	<u>671</u>	<u>10</u>	<u>8/28/96</u>	Field Instrument
	00095	umhos/cm	<u>694</u>	<u>10</u>	<u>8/28/96</u>	
	00095	umhos/cm	<u>697</u>	<u>10</u>	<u>8/28/96</u>	
T.O.X.	70354	mg/l	<u>0.012</u>	<u>0.010</u>	<u>9/4/96</u>	
	70354	mg/l	<u>NA</u>	<u>0.010</u>	<u>9/4/96</u>	9020
	70354	mg/l	<u>NA</u>	<u>0.010</u>	<u>9/4/96</u>	
	70354	mg/l	<u>NA</u>	<u>0.010</u>	<u>9/4/96</u>	
T.O.C.	00680	mg/l	<u>ND</u>	<u>1.0</u>	<u>9/5/96</u>	
	00680	mg/l	<u>NA</u>	<u>1.0</u>	<u>9/5/96</u>	9060
	00680	mg/l	<u>NA</u>	<u>1.0</u>	<u>9/5/96</u>	
	00680	mg/l	<u>NA</u>	<u>1.0</u>	<u>9/5/96</u>	

Assessment Monitoring Quarterly Report cont.

Well Number: MW-Q Facility Name Cannon Air Force Base

GROUND WATER QUALITY PARAMETERS

PARAMETERS	STORET CODE	UNITS	VALUE	DETECTION LIMIT	DATE ANALYZED	METHOD USED
Chloride	00940	mg/l	<u>NA</u>	<u> </u>	<u> </u>	<u> </u>
Iron	01045	mg/l	<u>ND</u>	<u>0.050</u>	<u>9/9/96</u>	<u>6010</u>
Manganese	71883	mg/l	<u>ND</u>	<u>0.0050</u>	<u>9/9/96</u>	<u>6010</u>
Phenols	32730	mg/l	<u>NA</u>	<u> </u>	<u> </u>	<u> </u>
Sodium	00929	mg/l	<u>45.5</u>	<u>0.40</u>	<u>9/9/96</u>	<u>6010</u>
Sulfate	00945	mg/l	<u>NA</u>	<u> </u>	<u> </u>	<u> </u>
Turbidity		TU	<u>0.79</u>	<u>0.01</u>	<u>8/28/96</u>	<u>Field Instrument</u>

ND = Not Detected
 NA = Not Analyzed

DATE OF THIS REPORT: October 23, 1996
 SIGNATURE: *John A. Helfrich*
 NAME (PRINTED): John A. Helfrich

Appendix II

**ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES
COLLECTED AUGUST 28, 1996**

ARDL, INC.
Rt. 15E, Mt. Vernon Airport Industrial Park
Mt. Vernon, Illinois 62864

Lab Report No: 300309

Report Date: 09/18/1996

Project Name: CANNON AFB	Analysis: VOLATILES, GC/MS (8260)
Project No.: COMML	Analytical Method: 8260
	Prep Method: 5030

Field ID: MWQ-D	ARDL Lab No.: 300309-01
Desc/Location: WELL	Lab Filename:
Sample Date: 08/28/1996	Received Date: 08/31/1996
Sample Time: 1310	Prep. Date: 09/09/1996
Matrix: WATER	Analysis Date: 09/09/1996
Amount Used: 5 mL	QC Batch: 0916TJP7
% Moisture: NA	Level: LOW

Parameter	Method Limit	Reporting Limit	Result	Data Flag	Units	Dilution Factor
DICHLORODIFLUOROMETHANE	0.92	5.0	ND		UG/L	1.00
CHLOROMETHANE	0.94	5.0	ND		UG/L	1.00
VINYL CHLORIDE	0.73	5.0	ND		UG/L	1.00
BROMOMETHANE	0.80	5.0	ND		UG/L	1.00
CHLOROETHANE	1.2	5.0	ND		UG/L	1.00
TRICHLOROFLUOROMETHANE	0.86	5.0	ND		UG/L	1.00
1,1-DICHLOROETHENE	0.67	5.0	ND		UG/L	1.00
2-PROPENAL	4.6	10.0	ND		UG/L	1.00
ACETONE	5.1	25.0	ND		UG/L	1.00
CARBON DISULFIDE	0.33	10.0	ND		UG/L	1.00
IODOMETHANE	0.73	5.0	ND		UG/L	1.00
ALLYL CHLORIDE	1.1	5.0	ND		UG/L	1.00
METHYLENE CHLORIDE	0.36	5.0	ND		UG/L	1.00
trans-1,2-DICHLOROETHENE	0.61	5.0	ND		UG/L	1.00
ACRYLONITRILE	2.9	10.0	ND		UG/L	1.00
1,1-DICHLOROETHANE	0.31	5.0	ND		UG/L	1.00
CHLOROPRENE	0.69	5.0	ND		UG/L	1.00
VINYL ACETATE	0.37	10.0	ND		UG/L	1.00
2,2-DICHLOROPROPANE	1.7	5.0	ND		UG/L	1.00
cis-1,2-DICHLOROETHENE	0.34	5.0	ND		UG/L	1.00
2-BUTANONE	2.6	25.0	ND		UG/L	1.00
BROMOCHLOROMETHANE	0.37	5.0	ND		UG/L	1.00
CHLOROFORM	0.20	5.0	ND		UG/L	1.00
1,1,1-TRICHLOROETHANE	0.36	5.0	ND		UG/L	1.00
1,1-DICHLOROPROPENE	0.40	5.0	ND		UG/L	1.00
CARBON TETRACHLORIDE	0.54	5.0	ND		UG/L	1.00
BENZENE	0.17	5.0	ND		UG/L	1.00
1,2-DICHLOROETHANE	0.50	5.0	ND		UG/L	1.00
ISOBUTYL ALCOHOL	8.0	100	ND		UG/L	1.00
TRICHLOROETHENE	0.26	5.0	ND		UG/L	1.00
1,2-DICHLOROPROPANE	0.24	5.0	ND		UG/L	1.00
DIBROMOMETHANE	0.39	5.0	ND		UG/L	1.00

ARDL, INC.
Rt. 15E, Mt. Vernon Airport Industrial Park
Mt. Vernon, Illinois 62864

Lab Report No: 300309

Report Date: 09/18/1996

Project Name: CANNON AFB	Analysis: VOLATILES, GC/MS (8260)
Project No.: COMML	Analytical Method: 8260
	Prep Method: 5030

Field ID: MWQ-D	ARDL Lab No.: 300309-01 (cont'd)
Desc/Location: WELL	Lab Filename:
Sample Date: 08/28/1996	Received Date: 08/31/1996
Sample Time: 1310	Prep. Date: 09/09/1996
Matrix: WATER	Analysis Date: 09/09/1996
Amount Used: 5 mL	QC Batch: 0916TJP7
% Moisture: NA	Level: LOW

Parameter	Method Limit	Reporting Limit	Result	Data Flag	Units	Dilution Factor
BROMODICHLOROMETHANE	0.13	5.0	ND		UG/L	1.00
METHYLMETHACRYLATE	1.5	5.0	ND		UG/L	1.00
cis-1,3-DICHLOROPROPENE	0.40	5.0	ND		UG/L	1.00
4-METHYL-2-PENTANONE	0.79	10.0	ND		UG/L	1.00
TOLUENE	0.15	5.0	ND		UG/L	1.00
trans-1,3-DICHLOROPROPENE	0.35	5.0	ND		UG/L	1.00
1,1,2-TRICHLOROETHANE	0.49	5.0	ND		UG/L	1.00
1,2-DIBROMOETHANE	0.43	5.0	ND		UG/L	1.00
TETRACHLOROETHENE	0.27	5.0	ND		UG/L	1.00
1,3-DICHLOROPROPANE	0.31	5.0	ND		UG/L	1.00
2-HEXANONE	1.7	10.0	ND		UG/L	1.00
DIBROMOCHLOROMETHANE	0.21	5.0	ND		UG/L	1.00
CHLOROBENZENE	0.090	5.0	ND		UG/L	1.00
1,1,1,2-TETRACHLOROETHANE	0.19	5.0	ND		UG/L	1.00
ETHYLBENZENE	0.20	5.0	ND		UG/L	1.00
m & p-XYLENE	0.54	5.0	ND		UG/L	1.00
o-XYLENE	0.20	5.0	ND		UG/L	1.00
STYRENE	0.080	5.0	ND		UG/L	1.00
BROMOFORM	0.29	5.0	ND		UG/L	1.00
ISOPROPYLBENZENE	0.27	5.0	ND		UG/L	1.00
1,1,2,2-TETRACHLOROETHANE	0.44	5.0	ND		UG/L	1.00
BROMOBENZENE	0.28	5.0	ND		UG/L	1.00
1,2,3-TRICHLOROPROPANE	0.29	5.0	ND		UG/L	1.00
n-PROPYLBENZENE	0.38	5.0	ND		UG/L	1.00
2-CHLOROTOLUENE	0.28	5.0	ND		UG/L	1.00
trans-1,4-DICHLORO-2-BUTENE	3.1	5.0	ND		UG/L	1.00
4-CHLOROTOLUENE	0.16	5.0	ND		UG/L	1.00
1,3,5-TRIMETHYLBENZENE	0.23	5.0	ND		UG/L	1.00
tert-BUTYLBENZENE	0.23	5.0	ND		UG/L	1.00
1,2,4-TRIMETHYLBENZENE	0.090	5.0	ND		UG/L	1.00
sec-BUTYLBENZENE	0.40	5.0	ND		UG/L	1.00
p-ISOPROPYLTOLUENE	0.27	5.0	ND		UG/L	1.00

ARDL, INC.
Rt. 15E, Mt. Vernon Airport Industrial Park
Mt. Vernon, Illinois 62864

Lab Report No: 300309

Report Date: 09/18/1996

Project Name: CANNON AFB		Analysis: VOLATILES, GC/MS (8260)				
Project No.: COMML		Analytical Method: 8260			Prep Method: 5030	
Field ID:	MWQ-D	ARDL Lab No.:	300309-01 (cont'd)			
Desc/Location:	WELL	Lab Filename:				
Sample Date:	08/28/1996	Received Date:	08/31/1996			
Sample Time:	1310	Prep. Date:	09/09/1996			
Matrix:	WATER	Analysis Date:	09/09/1996			
Amount Used:	5 mL	QC Batch:	0916TJP7			
% Moisture:	NA	Level:	LOW			
Parameter	Method Limit	Reporting Limit	Result	Data Flag	Units	Dilution Factor
1,3-DICHLOROBENZENE	0.14	5.0	ND		UG/L	1.00
1,4-DICHLOROBENZENE	0.090	5.0	ND		UG/L	1.00
1,2-DICHLOROBENZENE	0.17	5.0	ND		UG/L	1.00
n-BUTYLBENZENE	0.44	5.0	ND		UG/L	1.00
1,2-DIBROMO-3-CHLOROPROPANE	1.4	10.0	ND		UG/L	1.00
1,2,4-TRICHLOROBENZENE	0.34	5.0	ND		UG/L	1.00
HEXACHLOROCYCLOHEPTADIENE	0.75	5.0	ND		UG/L	1.00
NAPHTHALENE	0.39	5.0	ND		UG/L	1.00
1,2,3-TRICHLOROBENZENE	0.44	5.0	ND		UG/L	1.00

SURROGATE RECOVERIES:	Limits	Results
4-BROMOFLUOROBENZENE	86-115	102%
DIBROMOFLUOROMETHANE	86-118	99%
1,2-DICHLOROETHANE-D4	80-120	102%
TOLUENE-D8	88-110	106%

Surrogate recoveries marked with '*' indicates they are outside standard limits.

ARDL, INC.
Rt. 15E, Mt. Vernon Airport Industrial Park
Mt. Vernon, Illinois 62864

Lab Report No: 300309

Report Date: 09/18/1996

Project Name: CANNON AFB	Analysis: VOLATILES, GC/MS (8260)
Project No.: COMML	Analytical Method: 8260
	Prep Method: 5030

Field ID: MWQ	ARDL Lab No.: 300309-02
Desc/Location: WELL	Lab Filename:
Sample Date: 08/28/1996	Received Date: 08/31/1996
Sample Time: 1310	Prep. Date: 09/09/1996
Matrix: WATER	Analysis Date: 09/09/1996
Amount Used: 5 mL	QC Batch: 0916TJP7
% Moisture: NA	Level: LOW

Parameter	Method Limit	Reporting Limit	Data Result	Flag	Units	Dilution Factor
DICHLORODIFLUOROMETHANE	0.92	5.0	ND		UG/L	1.00
CHLOROMETHANE	0.94	5.0	ND		UG/L	1.00
VINYL CHLORIDE	0.73	5.0	ND		UG/L	1.00
BROMOMETHANE	0.80	5.0	ND		UG/L	1.00
CHLOROETHANE	1.2	5.0	ND		UG/L	1.00
TRICHLOROFLUOROMETHANE	0.86	5.0	ND		UG/L	1.00
1,1-DICHLOROETHENE	0.67	5.0	ND		UG/L	1.00
2-PROPENAL	4.6	10.0	ND		UG/L	1.00
ACETONE	5.1	25.0	ND		UG/L	1.00
CARBON DISULFIDE	0.33	10.0	ND		UG/L	1.00
IODOMETHANE	0.73	5.0	ND		UG/L	1.00
ALLYL CHLORIDE	1.1	5.0	ND		UG/L	1.00
METHYLENE CHLORIDE	0.36	5.0	ND		UG/L	1.00
trans-1,2-DICHLOROETHENE	0.61	5.0	ND		UG/L	1.00
ACRYLONITRILE	2.9	10.0	ND		UG/L	1.00
1,1-DICHLOROETHANE	0.31	5.0	ND		UG/L	1.00
CHLOROPRENE	0.69	5.0	ND		UG/L	1.00
VINYL ACETATE	0.37	10.0	ND		UG/L	1.00
2,2-DICHLOROPROPANE	1.7	5.0	ND		UG/L	1.00
cis-1,2-DICHLOROETHENE	0.34	5.0	ND		UG/L	1.00
2-BUTANONE	2.6	25.0	ND		UG/L	1.00
BROMOCHLOROMETHANE	0.37	5.0	ND		UG/L	1.00
CHLOROFORM	0.20	5.0	ND		UG/L	1.00
1,1,1-TRICHLOROETHANE	0.36	5.0	ND		UG/L	1.00
1,1-DICHLOROPROPENE	0.40	5.0	ND		UG/L	1.00
CARBON TETRACHLORIDE	0.54	5.0	ND		UG/L	1.00
BENZENE	0.17	5.0	ND		UG/L	1.00
1,2-DICHLOROETHANE	0.50	5.0	ND		UG/L	1.00
ISOBUTYL ALCOHOL	8.0	100	ND		UG/L	1.00
TRICHLOROETHENE	0.26	5.0	ND		UG/L	1.00
1,2-DICHLOROPROPANE	0.24	5.0	ND		UG/L	1.00
DIBROMOMETHANE	0.39	5.0	ND		UG/L	1.00

ARDL, INC.
Rt. 15E, Mt. Vernon Airport Industrial Park
Mt. Vernon, Illinois 62864

Lab Report No: 300309

Report Date: 09/18/1996

Project Name: CANNON AFB		Analysis: VOLATILES, GC/MS (8260)				
Project No.: COMML		Analytical Method: 8260				
		Prep Method: 5030				
Field ID:	MWQ	ARDL Lab No.:	300309-02 (cont'd)			
Desc/Location:	WELL	Lab Filename:				
Sample Date:	08/28/1996	Received Date:	08/31/1996			
Sample Time:	1310	Prep. Date:	09/09/1996			
Matrix:	WATER	Analysis Date:	09/09/1996			
Amount Used:	5 mL	QC Batch:	0916TJP7			
% Moisture:	NA	Level:	LOW			
Parameter	Method Limit	Reporting Limit	Result	Data Flag	Units	Dilution Factor
BROMODICHLOROMETHANE	0.13	5.0	ND		UG/L	1.00
METHYLMETHACRYLATE	1.5	5.0	ND		UG/L	1.00
cis-1,3-DICHLOROPROPENE	0.40	5.0	ND		UG/L	1.00
4-METHYL-2-PENTANONE	0.79	10.0	ND		UG/L	1.00
TOLUENE	0.15	5.0	ND		UG/L	1.00
trans-1,3-DICHLOROPROPENE	0.35	5.0	ND		UG/L	1.00
1,1,2-TRICHLOROETHANE	0.49	5.0	ND		UG/L	1.00
1,2-DIBROMOETHANE	0.43	5.0	ND		UG/L	1.00
TETRACHLOROETHENE	0.27	5.0	ND		UG/L	1.00
1,3-DICHLOROPROPANE	0.31	5.0	ND		UG/L	1.00
2-HEXANONE	1.7	10.0	ND		UG/L	1.00
DIBROMOCHLOROMETHANE	0.21	5.0	ND		UG/L	1.00
CHLOROBENZENE	0.090	5.0	ND		UG/L	1.00
1,1,1,2-TETRACHLOROETHANE	0.19	5.0	ND		UG/L	1.00
ETHYLBENZENE	0.20	5.0	ND		UG/L	1.00
m & p-XYLENE	0.54	5.0	ND		UG/L	1.00
o-XYLENE	0.20	5.0	ND		UG/L	1.00
STYRENE	0.080	5.0	ND		UG/L	1.00
BROMOFORM	0.29	5.0	ND		UG/L	1.00
ISOPROPYLBENZENE	0.27	5.0	ND		UG/L	1.00
1,1,2,2-TETRACHLOROETHANE	0.44	5.0	ND		UG/L	1.00
BROMOBENZENE	0.28	5.0	ND		UG/L	1.00
1,2,3-TRICHLOROPROPANE	0.29	5.0	ND		UG/L	1.00
n-PROPYLBENZENE	0.38	5.0	ND		UG/L	1.00
2-CHLOROTOLUENE	0.28	5.0	ND		UG/L	1.00
trans-1,4-DICHLORO-2-BUTENE	3.1	5.0	ND		UG/L	1.00
4-CHLOROTOLUENE	0.16	5.0	ND		UG/L	1.00
1,3,5-TRIMETHYLBENZENE	0.23	5.0	ND		UG/L	1.00
tert-BUTYLBENZENE	0.23	5.0	ND		UG/L	1.00
1,2,4-TRIMETHYLBENZENE	0.090	5.0	ND		UG/L	1.00
sec-BUTYLBENZENE	0.40	5.0	ND		UG/L	1.00
p-ISOPROPYLTOLUENE	0.27	5.0	ND		UG/L	1.00

ARDL, INC.
Rt. 15E, Mt. Vernon Airport Industrial Park
Mt. Vernon, Illinois 62864

Lab Report No: 300309

Report Date: 09/18/1996

Project Name: CANNON AFB		Analysis: VOLATILES, GC/MS (8260)	
Project No.: COMML		Analytical Method: 8260	
		Prep Method: 5030	
Field ID: MWQ	ARDL Lab No.:	300309-02 (cont'd)	
Desc/Location: WELL	Lab Filename:		
Sample Date: 08/28/1996	Received Date:	08/31/1996	
Sample Time: 1310	Prep. Date:	09/09/1996	
Matrix: WATER	Analysis Date:	09/09/1996	
Amount Used: 5 mL	QC Batch:	0916TJP7	
% Moisture: NA	Level:	LOW	

Parameter	Method	Reporting	Data	Dilution
	Limit	Limit		
1,3-DICHLORO BENZENE	0.14	5.0	ND	UG/L 1.00
1,4-DICHLORO BENZENE	0.090	5.0	ND	UG/L 1.00
1,2-DICHLORO BENZENE	0.17	5.0	ND	UG/L 1.00
n-BUTYLBENZENE	0.44	5.0	ND	UG/L 1.00
1,2-DIBROMO-3-CHLOROPROPANE	1.4	10.0	ND	UG/L 1.00
1,2,4-TRICHLORO BENZENE	0.34	5.0	ND	UG/L 1.00
HEXACHLORO BUTADIENE	0.75	5.0	ND	UG/L 1.00
NAPHTHALENE	0.39	5.0	ND	UG/L 1.00
1,2,3-TRICHLORO BENZENE	0.44	5.0	ND	UG/L 1.00

SURROGATE RECOVERIES:	Limits	Results
4-BROMOFLUROBENZENE	86-115	101%
DIBROMOFLUROMETHANE	86-118	102%
1,2-DICHLOROETHANE-D4	80-120	106%
TOLUENE-D8	88-110	106%

Surrogate recoveries marked with '*' indicates they are outside standard limits.

ARDL, INC.
Rt. 15E, Mt. Vernon Airport Industrial Park
Mt. Vernon, Illinois 62864

Lab Report No: 300309

Report Date: 09/20/1996

Project Name: CANNON AFB	Analysis: BNA'S (METHOD 8270)
Project No.: COMML	Analytical Method: 8270
	Prep Method: 3510
Field ID: MWQ-D	ARDL Lab No.: 300309-01
Desc/Location: WELL	Lab Filename:
Sample Date: 08/28/1996	Received Date: 08/31/1996
Sample Time: 1310	Prep. Date: 09/04/1996
Matrix: WATER	Analysis Date: 09/13/1996
Amount Used: 1000 mL	QC Batch: B1708
% Moisture: NA	Level: LOW

Parameter	Method Limit	Reporting Limit	Result	Data Flag	Units	Dilution Factor
PYRIDINE	2.1	10.0	ND		UG/L	1.00
N-NITROSODIMETHYLAMINE	2.5	10.0	ND		UG/L	1.00
2-PICOLINE	2.4	10.0	ND		UG/L	1.00
N-NITROSOMETHYLETHYLAMINE	2.5	10.0	ND		UG/L	1.00
METHYL METHANESULFONATE	1.4	10.0	ND		UG/L	1.00
N-NITROSODIETHYLAMINE	2.4	10.0	ND		UG/L	1.00
ETHYL METHANESULFONATE	2.0	10.0	ND		UG/L	1.00
ANILINE	1.7	10.0	ND		UG/L	1.00
PHENOL	1.8	10.0	ND		UG/L	1.00
BIS(-2-CHLOROETHYL)ETHER	2.9	10.0	ND		UG/L	1.00
2-CHLOROPHENOL	2.5	10.0	ND		UG/L	1.00
1,3-DICHLOROBENZENE	3.2	10.0	ND		UG/L	1.00
1,4-DICHLOROBENZENE	1.6	10.0	ND		UG/L	1.00
BENZYL ALCOHOL	3.3	10.0	ND		UG/L	1.00
1,2-DICHLOROBENZENE	2.4	10.0	ND		UG/L	1.00
2-METHYLPHENOL	1.8	10.0	ND		UG/L	1.00
BIS(2-CHLOROISOPROPYL)ETHER	2.7	10.0	ND		UG/L	1.00
ACETOPHENONE	1.8	10.0	ND		UG/L	1.00
N-NITROSOPYRROLIDINE	1.8	10.0	ND		UG/L	1.00
N-NITROSOMORPHOLINE	1.6	10.0	ND		UG/L	1.00
o-TOLUIDINE	2.0	10.0	ND		UG/L	1.00
4-METHYLPHENOL	2.0	10.0	ND		UG/L	1.00
N-NITroso-DI-N-PROPYLAMINE	3.2	10.0	ND		UG/L	1.00
HEXACHLOROETHANE	3.2	10.0	ND		UG/L	1.00
NITROBENZENE	2.7	10.0	ND		UG/L	1.00
N-NITROSOPIPERIDINE	2.0	10.0	ND		UG/L	1.00
ISOPHORONE	3.2	10.0	ND		UG/L	1.00
2-NITROPHENOL	3.4	10.0	ND		UG/L	1.00
2,4-DIMETHYLPHENOL	2.1	10.0	ND		UG/L	1.00
BIS(-2-CHLOROETHOXY)METHANE	3.3	10.0	ND		UG/L	1.00
o,o,o-TRIETHYLPHOSPHOROTHIOATE	2.1	10.0	ND		UG/L	1.00
2,4-DICHLOROPHENOL	3.2	10.0	ND		UG/L	1.00

ARDL, INC.
Rt. 15E, Mt. Vernon Airport Industrial Park
Mt. Vernon, Illinois 62864

Lab Report No: 300309

Report Date: 09/20/1996

Project Name: CANNON AFB	Analysis: BNA'S (METHOD 8270)
Project No.: COMML	Analytical Method: 8270
	Prep Method: 3510

Field ID: MWQ-D	ARDL Lab No.: 300309-01 (cont'd)
Desc/Location: WELL	Lab Filename:
Sample Date: 08/28/1996	Received Date: 08/31/1996
Sample Time: 1310	Prep. Date: 09/04/1996
Matrix: WATER	Analysis Date: 09/13/1996
Amount Used: 1000 mL	QC Batch: B1708
% Moisture: NA	Level: LOW

Parameter	Method Limit	Reporting Limit	Result	Data Flag	Units	Dilution Factor
1,2,4-TRICHLOROBENZENE	2.8	10.0	ND		UG/L	1.00
NAPHTHALENE	3.4	10.0	ND		UG/L	1.00
4-CHLOROANILINE	4.6	10.0	ND		UG/L	1.00
2,6-DICHLOROPHENOL	1.7	10.0	ND		UG/L	1.00
HEXACHLOROPROPENE	2.0	10.0	ND		UG/L	1.00
HEXACHLOROBUTADIENE	2.8	10.0	ND		UG/L	1.00
N-NITROSO-DI-N-BUTYLAMINE	1.7	10.0	ND		UG/L	1.00
4-CHLORO-3-METHYLPHENOL	3.4	10.0	ND		UG/L	1.00
SAFROLE	1.9	10.0	ND		UG/L	1.00
2-METHYLNAPHTHALENE	3.3	10.0	ND		UG/L	1.00
1,2,4,5-TETRACHLOROBENZENE	1.5	10.0	ND		UG/L	1.00
HEXACHLOROCYCLOPENTADIENE	1.7	10.0	ND		UG/L	1.00
ISOSAFROLE	2.6	10.0	ND		UG/L	1.00
2,4,6-TRICHLOROPHENOL	4.7	10.0	ND		UG/L	1.00
2,4,5-TRICHLOROPHENOL	4.2	50.0	ND		UG/L	1.00
2-CHLORONAPHTHALENE	2.7	10.0	ND		UG/L	1.00
2-NITROANILINE	2.8	50.0	ND		UG/L	1.00
1,4-NAPHTHOQUINONE	1.5	10.0	ND		UG/L	1.00
ACENAPHTHYLENE	3.1	10.0	ND		UG/L	1.00
DIMETHYL PHTHALATE	5.7	10.0	ND		UG/L	1.00
2,6-DINITROTOLUENE	2.1	10.0	ND		UG/L	1.00
3-NITROANILINE	5.9	50.0	ND		UG/L	1.00
ACENAPHTHENE	2.3	10.0	ND		UG/L	1.00
2,4-DINITROPHENOL	3.7	50.0	ND		UG/L	1.00
PENTACHLOROBENZENE	1.2	10.0	ND		UG/L	1.00
4-NITROPHENOL	2.0	50.0	ND		UG/L	1.00
DIBENZOFURAN	2.4	10.0	ND		UG/L	1.00
2,4-DINITROTOLUENE	2.3	10.0	ND		UG/L	1.00
1-NAPHTHYLAMINE	2.6	10.0	ND		UG/L	1.00
2-NAPHTHYLAMINE	1.2	10.0	ND		UG/L	1.00
2,3,4,6-TETRACHLOROPHENOL	0.86	10.0	ND		UG/L	1.00
DIETHYLPHTHALATE	3.5	10.0	ND		UG/L	1.00

ARDL, INC.
Rt. 15E, Mt. Vernon Airport Industrial Park
Mt. Vernon, Illinois 62864

Lab Report No: 300309

Report Date: 09/20/1996

Project Name: CANNON AFB		Analysis: BNA'S (METHOD 8270)	
Project No.: COMML		Analytical Method: 8270	
		Prep Method: 3510	
Field ID:	MWQ-D	ARDL Lab No.:	300309-01 (cont'd)
Desc/Location:	WELL	Lab Filename:	
Sample Date:	08/28/1996	Received Date:	08/31/1996
Sample Time:	1310	Prep. Date:	09/04/1996
Matrix:	WATER	Analysis Date:	09/13/1996
Amount Used:	1000 mL	QC Batch:	B1708
% Moisture:	NA	Level:	LOW

Parameter	Method Limit	Reporting Limit	Result	Data Flag	Units	Dilution Factor
4-CHLOROPHENYL-PHENYLETHER	2.6	10.0	ND		UG/L	1.00
FLUORENE	3.2	10.0	ND		UG/L	1.00
5-NITRO-o-TOLUIDINE	1.3	10.0	ND		UG/L	1.00
THIONAZIN	0.81	10.0	ND		UG/L	1.00
4-NITROANILINE	6.4	50.0	ND		UG/L	1.00
4,6-DINITRO-2-METHYLPHENOL	3.4	50.0	ND		UG/L	1.00
N-NITROSODIPHENYLAMINE	2.2	10.0	ND		UG/L	1.00
SULFOTEP	0.86	10.0	ND		UG/L	1.00
1,3,5-TRINITROBENZENE	1.0	10.0	ND		UG/L	1.00
4-BROMOPHENYL-PHENYLETHER	2.3	10.0	ND		UG/L	1.00
PHORATE	0.75	10.0	ND		UG/L	1.00
PHENACETIN	0.59	10.0	ND		UG/L	1.00
DIALATE	0.43	10.0	ND		UG/L	1.00
HEXACHLOROENZENE	2.2	10.0	ND		UG/L	1.00
DIMETHOATE	0.88	10.0	ND		UG/L	1.00
4-AMINOBIIPHENYL	1.1	10.0	ND		UG/L	1.00
PENTACHLOROPHENOL	2.9	50.0	ND		UG/L	1.00
PENTACHLORONITROBENZENE	0.84	10.0	ND		UG/L	1.00
PRONAMIDE	0.80	10.0	ND		UG/L	1.00
PHENANTHRENE	3.1	10.0	ND		UG/L	1.00
ANTHRACENE	2.9	10.0	ND		UG/L	1.00
DISULFOTON	0.58	10.0	ND		UG/L	1.00
METHYL PARATHION	0.87	10.0	ND		UG/L	1.00
DI-N-BUTYLPHTHALATE	3.9	10.0	ND		UG/L	1.00
PARATHION	0.75	10.0	ND		UG/L	1.00
METHAPYRILENE	2.6	10.0	ND		UG/L	1.00
FLUORANTHENE	3.3	10.0	ND		UG/L	1.00
PYRENE	3.5	10.0	ND		UG/L	1.00
ARAMITE	0.60	10.0	ND		UG/L	1.00
p-DIMETHYLAMINOAZOBENZENE	0.92	10.0	ND		UG/L	1.00
CHLOROENZILATE	1.0	10.0	ND		UG/L	1.00
KEPONE	0.41	10.0	ND		UG/L	1.00

ARDL, INC.
Rt. 15E, Mt. Vernon Airport Industrial Park
Mt. Vernon, Illinois 62864

Lab Report No: 300309

Report Date: 09/20/1996

Project Name: CANNON AFB		Analysis: BNA'S (METHOD 8270)	
Project No.: COMML		Analytical Method: 8270	
		Prep Method: 3510	
Field ID:	MWQ-D	ARDL Lab No.:	300309-01 (cont'd)
Desc/Location:	WELL	Lab Filename:	
Sample Date:	08/28/1996	Received Date:	08/31/1996
Sample Time:	1310	Prep. Date:	09/04/1996
Matrix:	WATER	Analysis Date:	09/13/1996
Amount Used:	1000 mL	QC Batch:	B1708
% Moisture:	NA	Level:	LOW

Parameter	Method Limit	Reporting Limit	Result	Data Flag	Units	Dilution Factor
3,3'-DIMETHYLBENZIDINE	3.2	10.0	ND		UG/L	1.00
FAMPHUR	1.3	10.0	ND		UG/L	1.00
BUTYLBENZYLPHTHALATE	3.6	10.0	ND		UG/L	1.00
2-ACETYLAMINOFLUORENE	0.95	10.0	ND		UG/L	1.00
3,3'-DICHLOROBENZIDINE	10.0	20.0	ND		UG/L	1.00
BENZO(a)ANTHRACENE	3.3	10.0	ND		UG/L	1.00
BIS(2-ETHYLHEXYL) PHTHALATE	3.5	10.0	ND		UG/L	1.00
CHRYSENE	2.5	10.0	ND		UG/L	1.00
DI-N-OCTYL PHTHALATE	2.7	10.0	ND		UG/L	1.00
BENZO(b)FLUORANTHENE	3.5	10.0	ND		UG/L	1.00
BENZO(k)FLUORANTHENE	3.4	10.0	ND		UG/L	1.00
7,12-DIMETHYLBENZ[A]ANTHRACENE	0.74	10.0	ND		UG/L	1.00
BENZO(a)PYRENE	1.3	10.0	ND		UG/L	1.00
3-METHYLCHOLANTHRENE	1.2	10.0	ND		UG/L	1.00
INDENO(1,2,3-cd)PYRENE	2.3	10.0	ND		UG/L	1.00
DIBENZO(a,h)ANTHRACENE	1.9	10.0	ND		UG/L	1.00
BENZO(g,h,i)PERYLENE	3.1	10.0	ND		UG/L	1.00

SURROGATE RECOVERIES:	Limits	Results
2-FLUOROBIPHENYL	43-116	86%
2-FLUOROPHENOL	21-100	48%
D5 NITROBENZENE	35-114	78%
2,4,6-TRIBROMOPHENOL	10-123	75%
D5 PHENOL	10-94	32%
D14 TERPHENYL	33-141	81%

Surrogate recoveries marked with '*' indicates they are outside standard limits.

ARDL, INC.
Rt. 15E, Mt. Vernon Airport Industrial Park
Mt. Vernon, Illinois 62864

Lab Report No: 300309

Report Date: 09/20/1996

Project Name: CANNON AFB	Analysis: BNA'S (METHOD 8270)
Project No.: COMML	Analytical Method: 8270
	Prep Method: 3510

Field ID: MWQ	ARDL Lab No.: 300309-02
Desc/Location: WELL	Lab Filename:
Sample Date: 08/28/1996	Received Date: 08/31/1996
Sample Time: 1310	Prep. Date: 09/04/1996
Matrix: WATER	Analysis Date: 09/13/1996
Amount Used: 1000 mL	QC Batch: B1708
% Moisture: NA	Level: LOW

Parameter	Method Limit	Reporting Limit	Result	Data Flag	Units	Dilution Factor
PYRIDINE	2.1	10.0	ND		UG/L	1.00
N-NITROSODIMETHYLAMINE	2.5	10.0	ND		UG/L	1.00
2-PICOLINE	2.4	10.0	ND		UG/L	1.00
N-NITROSOMETHYLETHYLAMINE	2.5	10.0	ND		UG/L	1.00
METHYL METHANESULFONATE	1.4	10.0	ND		UG/L	1.00
N-NITROSODIETHYLAMINE	2.4	10.0	ND		UG/L	1.00
ETHYL METHANESULFONATE	2.0	10.0	ND		UG/L	1.00
ANILINE	1.7	10.0	ND		UG/L	1.00
PHENOL	1.8	10.0	ND		UG/L	1.00
BIS(-2-CHLOROETHYL)ETHER	2.9	10.0	ND		UG/L	1.00
2-CHLOROPHENOL	2.5	10.0	ND		UG/L	1.00
1,3-DICHLOROBENZENE	3.2	10.0	ND		UG/L	1.00
1,4-DICHLOROBENZENE	1.6	10.0	ND		UG/L	1.00
BENZYL ALCOHOL	3.3	10.0	ND		UG/L	1.00
1,2-DICHLOROBENZENE	2.4	10.0	ND		UG/L	1.00
2-METHYLPHENOL	1.8	10.0	ND		UG/L	1.00
BIS(2-CHLOROISOPROPYL)ETHER	2.7	10.0	ND		UG/L	1.00
ACETOPHENONE	1.8	10.0	ND		UG/L	1.00
N-NITROSOPYRROLIDINE	1.8	10.0	ND		UG/L	1.00
N-NITROSOMORPHOLINE	1.6	10.0	ND		UG/L	1.00
o-TOLUIDINE	2.0	10.0	ND		UG/L	1.00
4-METHYLPHENOL	2.0	10.0	ND		UG/L	1.00
N-NITROSO-DI-N-PROPYLAMINE	3.2	10.0	ND		UG/L	1.00
HEXACHLOROETHANE	3.2	10.0	ND		UG/L	1.00
NITROBENZENE	2.7	10.0	ND		UG/L	1.00
N-NITROSOPIPERIDINE	2.0	10.0	ND		UG/L	1.00
ISOPHORONE	3.2	10.0	ND		UG/L	1.00
2-NITROPHENOL	3.4	10.0	ND		UG/L	1.00
2,4-DIMETHYLPHENOL	2.1	10.0	ND		UG/L	1.00
BIS(-2-CHLOROETHOXY)METHANE	3.3	10.0	ND		UG/L	1.00
o,o,o-TRIETHYLPHOSPHOROTHIOATE	2.1	10.0	ND		UG/L	1.00
2,4-DICHLOROPHENOL	3.2	10.0	ND		UG/L	1.00

ARDL, INC.
Rt. 15E, Mt. Vernon Airport Industrial Park
Mt. Vernon, Illinois 62864

Lab Report No: 300309

Report Date: 09/20/1996

Project Name: CANNON AFB	Analysis: BNA'S (METHOD 8270)
Project No.: COMML	Analytical Method: 8270
	Prep Method: 3510

Field ID: MWQ	ARDL Lab No.: 300309-02 (cont'd)
Desc/Location: WELL	Lab Filename:
Sample Date: 08/28/1996	Received Date: 08/31/1996
Sample Time: 1310	Prep. Date: 09/04/1996
Matrix: WATER	Analysis Date: 09/13/1996
Amount Used: 1000 mL	QC Batch: B1708
% Moisture: NA	Level: LOW

Parameter	Method Limit	Reporting Limit	Result	Data Flag	Units	Dilution Factor
1,2,4-TRICHLOROBENZENE	2.8	10.0	ND		UG/L	1.00
NAPHTHALENE	3.4	10.0	ND		UG/L	1.00
4-CHLOROANILINE	4.6	10.0	ND		UG/L	1.00
2,6-DICHLOROPHENOL	1.7	10.0	ND		UG/L	1.00
HEXACHLOROPROPENE	2.0	10.0	ND		UG/L	1.00
HEXACHLOROBUTADIENE	2.8	10.0	ND		UG/L	1.00
N-NITROSO-DI-N-BUTYLAMINE	1.7	10.0	ND		UG/L	1.00
4-CHLORO-3-METHYLPHENOL	3.4	10.0	ND		UG/L	1.00
SAFROLE	1.9	10.0	ND		UG/L	1.00
2-METHYLNAPHTHALENE	3.3	10.0	ND		UG/L	1.00
1,2,4,5-TETRACHLOROBENZENE	1.5	10.0	ND		UG/L	1.00
HEXACHLOROCYCLOPENTADIENE	1.7	10.0	ND		UG/L	1.00
ISOSAFROLE	2.6	10.0	ND		UG/L	1.00
2,4,6-TRICHLOROPHENOL	4.7	10.0	ND		UG/L	1.00
2,4,5-TRICHLOROPHENOL	4.2	50.0	ND		UG/L	1.00
2-CHLORONAPHTHALENE	2.7	10.0	ND		UG/L	1.00
2-NITROANILINE	2.8	50.0	ND		UG/L	1.00
1,4-NAPHTHOQUINONE	1.5	10.0	ND		UG/L	1.00
ACENAPHTHYLENE	3.1	10.0	ND		UG/L	1.00
DIMETHYL PHTHALATE	5.7	10.0	ND		UG/L	1.00
2,6-DINITROTOLUENE	2.1	10.0	ND		UG/L	1.00
3-NITROANILINE	5.9	50.0	ND		UG/L	1.00
ACENAPHTHENE	2.3	10.0	ND		UG/L	1.00
2,4-DINITROPHENOL	3.7	50.0	ND		UG/L	1.00
PENTACHLOROBENZENE	1.2	10.0	ND		UG/L	1.00
4-NITROPHENOL	2.0	50.0	ND		UG/L	1.00
DIBENZOFURAN	2.4	10.0	ND		UG/L	1.00
2,4-DINITROTOLUENE	2.3	10.0	ND		UG/L	1.00
1-NAPHTHYLAMINE	2.6	10.0	ND		UG/L	1.00
2-NAPHTHYLAMINE	1.2	10.0	ND		UG/L	1.00
2,3,4,6-TETRACHLOROPHENOL	0.86	10.0	ND		UG/L	1.00
DIETHYLPHTHALATE	3.5	10.0	ND		UG/L	1.00

ARDL, INC.
 Rt. 15E, Mt. Vernon Airport Industrial Park
 Mt. Vernon, Illinois 62864

Lab Report No: 300309

Report Date: 09/20/1996

Project Name: CANNON AFB	Analysis: BNA'S (METHOD 8270)
Project No.: COMML	Analytical Method: 8270
	Prep Method: 3510

Field ID: MWQ	ARDL Lab No.: 300309-02 (cont'd)
Desc/Location: WELL	Lab Filename:
Sample Date: 08/28/1996	Received Date: 08/31/1996
Sample Time: 1310	Prep. Date: 09/04/1996
Matrix: WATER	Analysis Date: 09/13/1996
Amount Used: 1000 mL	QC Batch: B1708
% Moisture: NA	Level: LOW

Parameter	Method Limit	Reporting Limit	Data Result	Flag	Units	Dilution Factor
4-CHLOROPHENYL-PHENYLETHER	2.6	10.0	ND		UG/L	1.00
FLUORENE	3.2	10.0	ND		UG/L	1.00
5-NITRO-o-TOLUIDINE	1.3	10.0	ND		UG/L	1.00
THIONAZIN	0.81	10.0	ND		UG/L	1.00
4-NITROANILINE	6.4	50.0	ND		UG/L	1.00
4,6-DINITRO-2-METHYLPHENOL	3.4	50.0	ND		UG/L	1.00
N-NITROSODIPHENYLAMINE	2.2	10.0	ND		UG/L	1.00
SULFOTEP	0.86	10.0	ND		UG/L	1.00
1,3,5-TRINITROBENZENE	1.0	10.0	ND		UG/L	1.00
4-BROMOPHENYL-PHENYLETHER	2.3	10.0	ND		UG/L	1.00
PHORATE	0.75	10.0	ND		UG/L	1.00
PHENACETIN	0.59	10.0	ND		UG/L	1.00
DIALATE	0.43	10.0	ND		UG/L	1.00
HEXACHLOROBENZENE	2.2	10.0	ND		UG/L	1.00
DIMETHOATE	0.88	10.0	ND		UG/L	1.00
4-AMINOBIIPHENYL	1.1	10.0	ND		UG/L	1.00
PENTACHLOROPHENOL	2.9	50.0	ND		UG/L	1.00
PENTACHLORONITROBENZENE	0.84	10.0	ND		UG/L	1.00
PRONAMIDE	0.80	10.0	ND		UG/L	1.00
PHENANTHRENE	3.1	10.0	ND		UG/L	1.00
ANTHRACENE	2.9	10.0	ND		UG/L	1.00
DISULFOTON	0.58	10.0	ND		UG/L	1.00
METHYL PARATHION	0.87	10.0	ND		UG/L	1.00
DI-N-BUTYLPHTHALATE	3.9	10.0	ND		UG/L	1.00
PARATHION	0.75	10.0	ND		UG/L	1.00
METHAPYRILENE	2.6	10.0	ND		UG/L	1.00
FLUORANTHENE	3.3	10.0	ND		UG/L	1.00
PYRENE	3.5	10.0	ND		UG/L	1.00
ARAMITE	0.60	10.0	ND		UG/L	1.00
p-DIMETHYLAMINOAZOBENZENE	0.92	10.0	ND		UG/L	1.00
CHLOROBENZILATE	1.0	10.0	ND		UG/L	1.00
KEPONE	0.41	10.0	ND		UG/L	1.00

ARDL, INC.
Rt. 15E, Mt. Vernon Airport Industrial Park
Mt. Vernon, Illinois 62864

Lab Report No: 300309

Report Date: 09/20/1996

Project Name: CANNON AFB		Analysis: BNA'S (METHOD 8270)				
Project No.: COMML		Analytical Method: 8270				
		Prep Method: 3510				
Field ID:	MWQ	ARDL Lab No.:	300309-02 (cont'd)			
Desc/Location:	WELL	Lab Filename:				
Sample Date:	08/28/1996	Received Date:	08/31/1996			
Sample Time:	1310	Prep. Date:	09/04/1996			
Matrix:	WATER	Analysis Date:	09/13/1996			
Amount Used:	1000 mL	QC Batch:	B1708			
% Moisture:	NA	Level:	LOW			
Parameter	Method Limit	Reporting Limit	Result	Data Flag	Units	Dilution Factor
3,3'-DIMETHYLBENZIDINE	3.2	10.0	ND		UG/L	1.00
FAMPHUR	1.3	10.0	ND		UG/L	1.00
BUTYLBENZYLPHthalate	3.6	10.0	ND		UG/L	1.00
2-ACETYLAMINOFLUORENE	0.95	10.0	ND		UG/L	1.00
3,3'-DICHLOROBENZIDINE	10.0	20.0	ND		UG/L	1.00
BENZO(a)ANTHRACENE	3.3	10.0	ND		UG/L	1.00
BIS(2-ETHYLHEXYL)PHTHALATE	3.5	10.0	ND		UG/L	1.00
CHRYSENE	2.5	10.0	ND		UG/L	1.00
DI-N-OCTYL PHTHALATE	2.7	10.0	ND		UG/L	1.00
BENZO(b)FLUORANTHENE	3.5	10.0	ND		UG/L	1.00
BENZO(k)FLUORANTHENE	3.4	10.0	ND		UG/L	1.00
7,12-DIMETHYLBENZ[A]ANTHRACENE	0.74	10.0	ND		UG/L	1.00
BENZO(a)PYRENE	1.3	10.0	ND		UG/L	1.00
3-METHYLCHOLANTHRENE	1.2	10.0	ND		UG/L	1.00
INDENO(1,2,3-cd)PYRENE	2.3	10.0	ND		UG/L	1.00
DIBENZO(a,h)ANTHRACENE	1.9	10.0	ND		UG/L	1.00
BENZO(g,h,i)PERYLENE	3.1	10.0	ND		UG/L	1.00

SURROGATE RECOVERIES:	Limits	Results
2-FLUOROBIPHENYL	43-116	84%
2-FLUOROPHENOL	21-100	48%
D5 NITROBENZENE	35-114	79%
2,4,6-TRIBROMOPHENOL	10-123	74%
D5 PHENOL	10-94	32%
D14 TERPHENYL	33-141	93%

Surrogate recoveries marked with '*' indicates they are outside standard limits.

ARDL, INC.
Rt. 15E, Mt. Vernon Airport Industrial Park
Mt. Vernon, Illinois 62864

Lab Report No: 300309

Report Date: 09/24/1996

Project Name: CANNON AFB	Analysis: POLYNUCLEAR AROMATICS, HPLC
Project No.:	Analytical Method: 8310
	Prep Method: 3510

Field ID: MWQ-D	ARDL Lab No.: 300309-01
Desc/Location: WELL	Lab Filename:
Sample Date: 08/28/1996	Received Date: 08/31/1996
Sample Time: 1310	Prep. Date: 09/04/1996
Matrix: WATER	Analysis Date: 09/13/1996
Amount Used: 1000 mL	QC Batch: B1730
% Moisture: NA	Level: LOW

Parameter	Method Limit	Reporting Limit	Result	Data Flag	Units	Dilution Factor
ACENAPHTHENE	0.065	0.60	ND		UG/L	1.00
ACENAPHTHYLENE	0.069	0.60	ND		UG/L	1.00
ANTHRACENE	0.040	0.50	ND		UG/L	1.00
BENZO(a)ANTHRACENE	0.030	0.13	ND		UG/L	1.00
BENZO(a)PYRENE	0.022	0.22	ND		UG/L	1.00
BENZO(b)FLUORANTHENE	0.031	0.18	ND		UG/L	1.00
BENZO(g,h,i)PERYLENE	0.039	0.30	ND		UG/L	1.00
BENZO(k)FLUORANTHENE	0.020	0.17	ND		UG/L	1.00
CHRYSENE	0.024	0.25	ND		UG/L	1.00
DIBENZO(a,h)ANTHRACENE	0.053	0.43	ND		UG/L	1.00
FLUORANTHENE	0.066	0.60	ND		UG/L	1.00
FLUORENE	0.049	0.50	ND		UG/L	1.00
INDENO(1,2,3-cd)PYRENE	0.022	0.20	ND		UG/L	1.00
NAPHTHALENE	0.057	0.60	ND		UG/L	1.00
PHENANTHRENE	0.049	0.50	ND		UG/L	1.00
PYRENE	0.037	0.40	ND		UG/L	1.00

SURROGATE RECOVERIES:	Limits	Results
9-PHENYLANTHRACENE	0-173	69%

Surrogate recoveries marked with '*' indicates they are outside standard limits.

ARDL, INC.
Rt. 15E, Mt. Vernon Airport Industrial Park
Mt. Vernon, Illinois 62864

Lab Report No: 300309

Report Date: 09/24/1996

Project Name: CANNON AFB		Analysis: POLYNUCLEAR AROMATICS, HPLC				
Project No.:		Analytical Method: 8310		Prep Method: 3510		
Field ID:	MWQ	ARDL Lab No.:	300309-02			
Desc/Location:	WELL	Lab Filename:				
Sample Date:	08/28/1996	Received Date:	08/31/1996			
Sample Time:	1310	Prep. Date:	09/04/1996			
Matrix:	WATER	Analysis Date:	09/13/1996			
Amount Used:	1000 mL	QC Batch:	B1730			
% Moisture:	NA	Level:	LOW			
Parameter	Method Limit	Reporting Limit	Result	Data Flag	Units	Dilution Factor
ACENAPHTHENE	0.065	0.60	ND		UG/L	1.00
ACENAPHTHYLENE	0.069	0.60	ND		UG/L	1.00
ANTHRACENE	0.040	0.50	ND		UG/L	1.00
BENZO(a)ANTHRACENE	0.030	0.13	ND		UG/L	1.00
BENZO(a)PYRENE	0.022	0.22	ND		UG/L	1.00
BENZO(b)FLUORANTHENE	0.031	0.18	ND		UG/L	1.00
BENZO(g,h,i)PERYLENE	0.039	0.30	ND		UG/L	1.00
BENZO(k)FLUORANTHENE	0.020	0.17	ND		UG/L	1.00
CHRYSENE	0.024	0.25	ND		UG/L	1.00
DIBENZO(a,h)ANTHRACENE	0.053	0.43	ND		UG/L	1.00
FLUORANTHENE	0.066	0.60	ND		UG/L	1.00
FLUORENE	0.049	0.50	ND		UG/L	1.00
INDENO(1,2,3-cd)PYRENE	0.022	0.20	ND		UG/L	1.00
NAPHTHALENE	0.057	0.60	ND		UG/L	1.00
PHENANTHRENE	0.049	0.50	ND		UG/L	1.00
PYRENE	0.037	0.40	ND		UG/L	1.00

SURROGATE RECOVERIES:	Limits	Results
9-PHENYLANTHRACENE	0-173	86%

Surrogate recoveries marked with '*' indicates they are outside standard limits.

ARDL, INC.
Rt. 15E, Mt. Vernon Airport Industrial Park
Mt. Vernon, Illinois 62864

Lab Report No: 300309

Report Date: 09/16/1996

Project Name: CANNON AFB	Analysis: CHLORINATED PESTICIDES & PCB'S
Project No.: COMML	Analytical Method: 8080
	Prep Method: 3510

Field ID: MWQ-D	ARDL Lab No.: 300309-01
Desc/Location: WELL	Lab Filename:
Sample Date: 08/28/1996	Received Date: 08/31/1996
Sample Time: 1310	Prep. Date: 09/04/1996
Matrix: WATER	Analysis Date: 09/12/1996
Amount Used: 1000 mL	QC Batch: B1700
% Moisture: NA	Level: LOW

Parameter	Method Limit	Reporting Limit	Result	Data Flag	Units	Dilution Factor
ISODRIN	0.0090	0.050	ND		UG/L	1.00
alpha-BHC	0.0090	0.050	ND		UG/L	1.00
BETA-BHC	0.0090	0.050	ND		UG/L	1.00
delta-BHC	0.0090	0.050	ND		UG/L	1.00
gamma-BHC	0.0080	0.050	ND		UG/L	1.00
HEPTACHLOR	0.010	0.050	ND		UG/L	1.00
ALDRIN	0.0080	0.050	ND		UG/L	1.00
HEPTACHLOR EPOXIDE	0.0080	0.050	ND		UG/L	1.00
ENDOSULFAN I	0.0090	0.050	ND		UG/L	1.00
DIELDRIN	0.0080	0.10	ND		UG/L	1.00
4,4'-DDE	0.0080	0.10	ND		UG/L	1.00
ENDRIN	0.0080	0.10	ND		UG/L	1.00
ENDOSULFAN II	0.0080	0.10	ND		UG/L	1.00
4,4'-DDD	0.0080	0.10	ND		UG/L	1.00
ENDOSULFAN SULFATE	0.0090	0.10	ND		UG/L	1.00
4,4'-DDT	0.0080	0.10	ND		UG/L	1.00
METHOXYCHLOR	0.0090	0.10	ND		UG/L	1.00
ENDRIN ALDEHYDE	0.0090	0.10	ND		UG/L	1.00
CHLORDANE	0.017	0.14	ND		UG/L	1.00
TOXAPHENE	0.17	1.7	ND		UG/L	1.00
AROCLOR 1016	0.17	1.0	ND		UG/L	1.00
AROCLOR 1221	0.33	2.0	ND		UG/L	1.00
AROCLOR 1232	0.16	1.0	ND		UG/L	1.00
AROCLOR 1242	0.16	1.0	ND		UG/L	1.00
AROCLOR 1248	0.17	1.0	ND		UG/L	1.00
AROCLOR 1254	0.17	1.0	ND		UG/L	1.00
AROCLOR 1260	0.17	1.0	ND		UG/L	1.00
ENDRIN KETONE	0.0080	0.10	ND		UG/L	1.00

ARDL, INC.
 Rt. 15E, Mt. Vernon Airport Industrial Park
 Mt. Vernon, Illinois 62864

Lab Report No: 300309

Report Date: 09/16/1996

Project Name: CANNON AFB		Analysis: CHLORINATED PESTICIDES & PCB'S			
Project No.: COMML		Analytical Method: 8080			
		Prep Method: 3510			
Field ID:	MWQ-D	ARDL Lab No.:	300309-01 (cont'd)		
Desc/Location:	WELL	Lab Filename:			
Sample Date:	08/28/1996	Received Date:	08/31/1996		
Sample Time:	1310	Prep. Date:	09/04/1996		
Matrix:	WATER	Analysis Date:	09/12/1996		
Amount Used:	1000 mL	QC Batch:	B1700		
% Moisture:	NA	Level:	LOW		
Parameter	Method Limit	Reporting Limit	Result	Data Flag	Dilution Units Factor

SURROGATE RECOVERIES:	Limits	Results
DECACHLOROBIPHENYL	3-144	100%
TETRACHLORO-m-XYLENE	37-150	95%

Surrogate recoveries marked with '*' indicates they are outside standard limits.

METHOD BLANK REPORT
ARDL, Inc., Mt. Vernon Airport
Mt. Vernon, Illinois 62864

Lab Report No: 300309

Report Date: 09/16/1996

Project Name: CANNON AFB		Analysis: CHLORINATED PESTICIDES & PCB'S				
Project No.: COMML		Analytical Method: 8080				
		Prep Method: 3510				
Field ID:	NA	ARDL Lab No.:	300309-02B1			
Desc/Location:	NA	Lab Filename:				
Sample Date:	NA	Received Date:	NA			
Sample Time:	NA	Prep. Date:	09/04/1996			
Matrix:	QC Material	Analysis Date:	09/12/1996			
Level:	LOW	QC Batch:	B1700			
Parameter	Method Limit	Reporting Limit	Result	Data Flag	Units	Dilution Factor
ISODRIN	0.009	0.050	ND		UG/L	1.00
alpha-BHC	0.009	0.050	ND		UG/L	1.00
BETA-BHC	0.009	0.050	ND		UG/L	1.00
delta-BHC	0.009	0.050	ND		UG/L	1.00
gamma-BHC	0.008	0.050	ND		UG/L	1.00
HEPTACHLOR	0.010	0.050	ND		UG/L	1.00
ALDRIN	0.008	0.050	ND		UG/L	1.00
HEPTACHLOR EPOXIDE	0.008	0.050	ND		UG/L	1.00
ENDOSULFAN 1	0.009	0.050	ND		UG/L	1.00
DIELDRIN	0.008	0.10	ND		UG/L	1.00
4,4'-DDE	0.008	0.10	ND		UG/L	1.00
ENDRIN	0.008	0.10	ND		UG/L	1.00
ENDOSULFAN II	0.008	0.10	ND		UG/L	1.00
4,4'-DDD	0.008	0.10	ND		UG/L	1.00
ENDOSULFAN SULFATE	0.009	0.10	ND		UG/L	1.00
4,4'-DDT	0.008	0.10	ND		UG/L	1.00
METHOXYCHLOR	0.009	0.10	ND		UG/L	1.00
ENDRIN ALDEHYDE	0.009	0.10	ND		UG/L	1.00
CHLORDANE	0.017	0.14	ND		UG/L	1.00
TOXAPHENE	0.165	1.7	ND		UG/L	1.00
AROCLOR 1016	0.165	1.0	ND		UG/L	1.00
AROCLOR 1221	0.329	2.0	ND		UG/L	1.00
AROCLOR 1232	0.158	1.0	ND		UG/L	1.00
AROCLOR 1242	0.159	1.0	ND		UG/L	1.00
AROCLOR 1248	0.166	1.0	ND		UG/L	1.00
AROCLOR 1254	0.169	1.0	ND		UG/L	1.00
AROCLOR 1260	0.165	1.0	ND		UG/L	1.00
ENDRIN KETONE	0.008	0.10	ND		UG/L	1.00

METHOD BLANK REPORT
ARDL, Inc., Mt. Vernon Airport
Mt. Vernon, Illinois 62864

Lab Report No: 300309

Report Date: 09/16/1996

Project Name: CANNON AFB		Analysis: CHLORINATED PESTICIDES & PCB'S	
Project No.: COMML		Analytical Method: 8080	
		Prep Method: 3510	
Field ID:	NA	ARDL Lab No.:	300309-02B1 (cont'd)
Desc/Location:	NA	Lab Filename:	
Sample Date:	NA	Received Date:	NA
Sample Time:	NA	Prep. Date:	09/04/1996
Matrix:	QC Material	Analysis Date:	09/12/1996
Level:	LOW	QC Batch:	B1700
Method Reporting Data Dilution			
Parameter	Limit	Limit Result Flag Units Factor	

SURROGATE RECOVERIES:	Limits	Results
DECACHLOROBIPHENYL	3-144	155%*
TETRACHLORO-m-XYLENE	37-150	130%

Surrogate recoveries marked with '*' indicates they are outside standard limits.

ARDL, INC.
 Rt. 15E, Mt. Vernon Airport Industrial Park
 Mt. Vernon, Illinois 62864

Lab Report No: 300309

Report Date: 09/19/1996

Project Name: CANNON AFB		Analysis: HERBICIDES	
Project No.: COMML		Analytical Method: 8150	
Prep Method: METHOD			
Field ID: MWQ-D	ARDL Lab No.:	300309-01	
Desc/Location: WELL	Lab Filename:		
Sample Date: 08/28/1996	Received Date:	08/31/1996	
Sample Time: 1310	Prep. Date:	09/03/1996	
Matrix: WATER	Analysis Date:	09/13/1996	
Amount Used: 1000 mL	QC Batch:	B1709	
% Moisture: NA	Level:	LOW	

Parameter	Method Limit	Reporting Limit	Result	Data Flag	Units	Dilution Factor
2,4-D	0.063	0.60	ND		UG/L	1.00
2,4-DB	0.058	0.60	ND		UG/L	1.00
2,4,5-T	0.068	0.60	ND		UG/L	1.00
DALAPON	0.066	0.66	ND		UG/L	1.00
DICAMBA	0.059	0.60	ND		UG/L	1.00
DICHLORPROP	0.071	0.71	ND		UG/L	1.00
DINOSEB	0.059	0.60	ND		UG/L	1.00
SILVEX	0.064	0.60	ND		UG/L	1.00
MCPA	35.1	350	ND		UG/L	1.00
MCPP	33.0	330	ND		UG/L	1.00

SURROGATE RECOVERIES:	Limits	Results
DICHLOROPHENYL ACETIC ACID	12-108	68%

Surrogate recoveries marked with '*' indicates they are outside standard limits.

ARDL, INC.
 Rt. 15E, Mt. Vernon Airport Industrial Park
 Mt. Vernon, Illinois 62864

Lab Report No: 300309

Report Date: 09/19/1996

Project Name: CANNON AFB		Analysis: HERBICIDES	
Project No.: COMML		Analytical Method: 8150	
		Prep Method: METHOD	
Field ID: MWQ	ARDL Lab No.:	300309-02	
Desc/Location: WELL	Lab Filename:		
Sample Date: 08/28/1996	Received Date:	08/31/1996	
Sample Time: 1310	Prep. Date:	09/03/1996	
Matrix: WATER	Analysis Date:	09/13/1996	
Amount Used: 1000 mL	QC Batch:	B1709	
% Moisture: NA	Level:	LOW	

Parameter	Method Limit	Reporting Limit	Result	Data Flag	Units	Dilution Factor
2,4-D	0.063	0.60	ND		UG/L	1.00
2,4-DB	0.058	0.60	ND		UG/L	1.00
2,4,5-T	0.068	0.60	ND		UG/L	1.00
DALAPON	0.066	0.66	ND		UG/L	1.00
DICAMBA	0.059	0.60	ND		UG/L	1.00
DICHLORPROP	0.071	0.71	ND		UG/L	1.00
DINOSEB	0.059	0.60	ND		UG/L	1.00
SILVEX	0.064	0.60	ND		UG/L	1.00
MCPA	35.1	350	ND		UG/L	1.00
MCPP	33.0	330	ND		UG/L	1.00

SURROGATE RECOVERIES:	Limits	Results
DICHLOROPHENYL ACETIC ACID	12-108	64%

Surrogate recoveries marked with '*' indicates they are outside standard limits.

ARDL, Inc.

TLI Project: 38683 Method 8280 PCDD/PCDF Analysis (b)
 Client Sample: 300309-1 Analysis File: B963445
 Client Project: HLA Cannon Matrix: WATER

PCDD/PCDF SUMMARY REPORT

Specific Analytes	Conc. (ppt)	DL (ppt)	Blank (ppt)	Definitions:
2,3,7,8-TCDD	ND	0.689	ND	
1,2,3,7,8-PeCDD	ND	4.33	ND	
1,2,3,4,7,8-HxCDD	ND	5	ND	
1,2,3,6,7,8-HxCDD	ND	3.11	ND	
1,2,3,7,8,9-HxCDD	ND	12.7	ND	
1,2,3,4,6,7,8-HpCDD	ND	4.44	ND	
1,2,3,4,6,7,8,9-OCDD	ND	5.33	ND	
2,3,7,8-TCDF	ND	0.6	ND	
1,2,3,7,8-PeCDF	ND	6.56	ND	
2,3,4,7,8-PeCDF	ND	7.78	ND	
1,2,3,4,7,8-HxCDF	ND	8.33	ND	
1,2,3,6,7,8-HxCDF	ND	8.44	ND	
2,3,4,6,7,8-HxCDF	ND	7.11	ND	
1,2,3,7,8,9-HxCDF	ND	7.22	ND	
1,2,3,4,6,7,8-HpCDF	ND	2.67	ND	
1,2,3,4,7,8,9-HpCDF	ND	5.67	ND	
1,2,3,4,6,7,8,9-OCDF	ND	5.44	ND	

Total Analytes	Conc. (ppt)	DL (ppt)
Total TCDD	ND	0.689
Total PeCDD	ND	4.33
Total HxCDD	ND	6.93
Total HpCDD	ND	4.44
Total TCDF	ND	0.6
Total PeCDF	ND	7.17
Total HxCDF	ND	7.78
Total HpCDF	ND	4.17

ARDL, Inc.

TLI Project: 38683
 Client Sample: 300309-1

Method 8280 PCDD/PCDF Analysis (b)
 Analysis File: B963445

Client Project: HLA Cannon	Date Received: 09/04/96	Spike File: SP828050
Sample Matrix: WATER	Date Extracted: 09/05/96	ICal: B856266
TLI ID: 137-9-1	Date Analyzed: 09/19/96	ConCal: B963443
Sample Size: 0.900 L	Dilution Factor: n/a	% Moisture: n/a
Dry Weight: n/a	Blank File: B963444	% Lipid: n/a
GC Column: DB-5	Analyst: MM	% Solids: n/a

Analytes	Conc. (ppt)	DL	EMPC	Ratio	RT	Flags
2,3,7,8-TCDD	ND	0.689				---
1,2,3,7,8-PeCDD	ND	4.33				---
1,2,3,4,7,8-HxCDD	ND	5				---
1,2,3,6,7,8-HxCDD	ND	3.11				---
1,2,3,7,8,9-HxCDD	ND	12.7				---
1,2,3,4,6,7,8-HpCDD	ND	4.44				---
1,2,3,4,6,7,8,9-OCDD	ND	5.33				---
2,3,7,8-TCDF	ND	0.6				---
1,2,3,7,8-PeCDF	ND	6.56				---
2,3,4,7,8-PeCDF	ND	7.78				---
1,2,3,4,7,8-HxCDF	ND	8.33				---
1,2,3,6,7,8-HxCDF	ND	8.44				---
2,3,4,6,7,8-HxCDF	ND	7.11				---
1,2,3,7,8,9-HxCDF	ND	7.22				---
1,2,3,4,6,7,8-HpCDF	ND	2.67				---
1,2,3,4,7,8,9-HpCDF	ND	5.67				---
1,2,3,4,6,7,8,9-OCDF	ND	5.44				---

Totals	Conc. (ppt)	Number	DL	EMPC	Flags
Total TCDD		0		6.03	---
Total PeCDD	ND	0	4.33		---
Total HxCDD	ND	0	6.93		---
Total HpCDD	ND	0	4.44		---
Total TCDF	ND	0	0.6		---
Total PeCDF	ND	0	7.17		---
Total HxCDF	ND	0	7.78		---
Total HpCDF	ND	0	4.17		---

ARDL, Inc.

TLI Project: 38683
 Client Sample: 300309-1

Method 8280 PCDD/PCDF Analysis (b)
 Analysis File: B963445

Internal Standards	Conc. (ppt)	% Recovery	QC Limits	Ratio	RT	Flags
¹³ C ₁₂ -2,3,7,8-TCDF	43.2	77.7	40%-120%	0.81	23:13	—
¹³ C ₁₂ -2,3,7,8-TCDD	36.5	65.6	40%-120%	0.79	23:58	—
¹³ C ₁₂ -1,2,3,6,7,8-HxCDD	47.3	85.1	40%-120%	1.30	31:31	—
¹³ C ₁₂ -1,2,3,4,6,7,8-HpCDF	80.6	72.5	40%-120%	1.07	33:40	—
¹³ C ₁₂ -1,2,3,4,6,7,8,9-OCDD	55.1	49.6	25%-120%	0.92	38:13	—

Clean-Up Standard	Conc. (ppt)	% Recovery	QC Limits	RT	Flags
³⁷ Cl ₄ -2,3,7,8-TCDD	19.1	68.6	40%-120%	23:59	—

Recovery Standards	Ratio	RT	Flags
¹³ C ₁₂ -1,2,3,4-TCDD	0.80	23:46	—
¹³ C ₁₂ -1,2,3,7,8,9-HxCDD	1.35	31:50	—

Data Reviewer: S. A. Paris 09/22/96

ARDL, Inc.

TLI Project: **38683**
 Client Sample: **300309-1**

Toxicity Equivalents Report
 Analysis File: **B963445**

Client Project: HLA Cannon	Date Received: 09/04/96	Spike File: SP828050
Sample Matrix: WATER	Date Extracted: 09/05/96	ICal: B856266
TLI ID: 137-9-1	Date Analyzed: 09/19/96	ConCal: B963443
Sample Size: 0.900 L	Dilution Factor: n/a	% Moisture: n/a
Dry Weight: n/a	Blank File: B963444	% Lipid: n/a
GC Column: DB-5	Analyst: MM	% Solids: n/a

Analytes	Conc. (ppt)		TEF		Equivalent
2,3,7,8-TCDD	ND	x	1	=	0
1,2,3,7,8-PeCDD	ND	x	0.5	=	0
1,2,3,4,7,8-HxCDD	ND	x	0.1	=	0
1,2,3,6,7,8-HxCDD	ND	x	0.1	=	0
1,2,3,7,8,9-HxCDD	ND	x	0.1	=	0
1,2,3,4,6,7,8-HpCDD	ND	x	0.01	=	0
1,2,3,4,6,7,8,9-OCDD	ND	x	0.001	=	0
2,3,7,8-TCDF	ND	x	0.1	=	0
1,2,3,7,8-PeCDF	ND	x	0.05	=	0
2,3,4,7,8-PeCDF	ND	x	0.5	=	0
1,2,3,4,7,8-HxCDF	ND	x	0.1	=	0
1,2,3,6,7,8-HxCDF	ND	x	0.1	=	0
2,3,4,6,7,8-HxCDF	ND	x	0.1	=	0
1,2,3,7,8,9-HxCDF	ND	x	0.1	=	0
1,2,3,4,6,7,8-HpCDF	ND	x	0.01	=	0
1,2,3,4,7,8,9-HpCDF	ND	x	0.01	=	0
1,2,3,4,6,7,8,9-OCDF	ND	x	0.001	=	0

Total 2,3,7,8-TCDD Toxicity (1989 ITF) Equivalents: 0 ppt

TLI Project: 38683
 Client Sample: 300309-2
 Client Project: HLA Cannon

Method 8280 PCDD/PCDF Analysis (b)
 Analysis File: B963446
 Matrix: WATER

PCDD/PCDF SUMMARY REPORT

Specific Analytes	Conc. (ppt)	DL (ppt)	Blank (ppt)	Definitions:
2,3,7,8-TCDD	ND	0.689	ND	
1,2,3,7,8-PeCDD	ND	4.33	ND	
1,2,3,4,7,8-HxCDD	ND	5	ND	
1,2,3,6,7,8-HxCDD	ND	3.11	ND	
1,2,3,7,8,9-HxCDD	ND	12.7	ND	
1,2,3,4,6,7,8-HpCDD	ND	4.44	ND	
1,2,3,4,6,7,8,9-OCDD	ND	5.33	ND	
2,3,7,8-TCDF	ND	0.6	ND	
1,2,3,7,8-PeCDF	ND	6.56	ND	
2,3,4,7,8-PeCDF	ND	7.78	ND	
1,2,3,4,7,8-HxCDF	ND	8.33	ND	
1,2,3,6,7,8-HxCDF	ND	8.44	ND	
2,3,4,6,7,8-HxCDF	ND	7.11	ND	
1,2,3,7,8,9-HxCDF	ND	7.22	ND	
1,2,3,4,6,7,8-HpCDF	ND	2.67	ND	
1,2,3,4,7,8,9-HpCDF	ND	5.67	ND	
1,2,3,4,6,7,8,9-OCDF	ND	5.44	ND	

Total Analytes	Conc. (ppt)	DL (ppt)	
Total TCDD	ND	0.689	
Total PeCDD	ND	4.33	
Total HxCDD	ND	6.93	
Total HpCDD	ND	4.44	
Total TCDF	ND	0.6	
Total PeCDF	ND	7.17	
Total HxCDF	ND	7.78	
Total HpCDF	ND	4.17	

ARDL, Inc.

TLI Project: 38683
 Client Sample: 300309-2

Method 8280 PCDD/PCDF Analysis (b)
 Analysis File: B963446

Client Project: HLA Cannon	Date Received: 09/04/96	Spike File: SP828050
Sample Matrix: WATER	Date Extracted: 09/05/96	ICal: B856266
TLI ID: 137-9-2A	Date Analyzed: 09/19/96	ConCal: B963443
Sample Size: 0.900 L	Dilution Factor: n/a	% Moisture: n/a
Dry Weight: n/a	Blank File: B963444	% Lipid: n/a
GC Column: DB-5	Analyst: MM	% Solids: n/a

Analytes	Conc. (ppt)	DL	EMPC	Ratio	RT	Flags
2,3,7,8-TCDD	ND	0.689				---
1,2,3,7,8-PeCDD	ND	4.33				---
1,2,3,4,7,8-HxCDD	ND	5				---
1,2,3,6,7,8-HxCDD	ND	3.11				---
1,2,3,7,8,9-HxCDD	ND	12.7				---
1,2,3,4,6,7,8-HpCDD	ND	4.44				---
1,2,3,4,6,7,8,9-OCDD	ND	5.33				---
2,3,7,8-TCDF	ND	0.6				---
1,2,3,7,8-PeCDF	ND	6.56				---
2,3,4,7,8-PeCDF	ND	7.78				---
1,2,3,4,7,8-HxCDF	ND	8.33				---
1,2,3,6,7,8-HxCDF	ND	8.44				---
2,3,4,6,7,8-HxCDF	ND	7.11				---
1,2,3,7,8,9-HxCDF	ND	7.22				---
1,2,3,4,6,7,8-HpCDF	ND	2.67				---
1,2,3,4,7,8,9-HpCDF	ND	5.67				---
1,2,3,4,6,7,8,9-OCDF	ND	5.44				---

Totals	Conc. (ppt)	Number	DL	EMPC	Flags
Total TCDD		0		6.5	---
Total PeCDD	ND	0	4.33		---
Total HxCDD	ND	0	6.93		---
Total HpCDD	ND	0	4.44		---
Total TCDF	ND	0	0.6		---
Total PeCDF	ND	0	7.17		---
Total HxCDF		0		10.1	---
Total HpCDF	ND	0	4.17		---

ARDL, Inc.

TLI Project: 38683
 Client Sample: 300309-2

Method 8280 PCDD/PCDF Analysis (b)
 Analysis File: B963446

Internal Standards	Conc. (ppt)	% Recovery	QC Limits	Ratio	RT	Flags
¹³ C ₁₂ -2,3,7,8-TCDF	39.8	71.6	40%-120%	0.80	23:14	—
¹³ C ₁₂ -2,3,7,8-TCDD	31.6	56.9	40%-120%	0.78	23:58	—
¹³ C ₁₂ -1,2,3,6,7,8-HxCDD	42.7	76.8	40%-120%	1.32	31:31	—
¹³ C ₁₂ -1,2,3,4,6,7,8-HpCDF	75.8	68.2	40%-120%	1.08	33:40	—
¹³ C ₁₂ -1,2,3,4,6,7,8,9-OCDD	48.4	43.5	25%-120%	0.92	38:13	—

Clean-Up Standard	Conc. (ppt)	% Recovery	QC Limits	RT	Flags
³⁷ Cl ₄ -2,3,7,8-TCDD	16.7	60.3	40%-120%	23:59	—

Recovery Standards	Ratio	RT	Flags
¹³ C ₁₂ -1,2,3,4-TCDD	0.81	23:46	—
¹³ C ₁₂ -1,2,3,7,8,9-HxCDD	1.31	31:50	—

Data Reviewer: S. A. Perius 09/22/96

ARDL, Inc.

TLI Project: 38683
 Client Sample: 300309-2

Toxicity Equivalents Report
 Analysis File: B963446

Client Project:	HLA Cannon	Date Received:	09/04/96	Spike File:	SP828050
Sample Matrix:	WATER	Date Extracted:	09/05/96	ICal:	B856266
TLI ID:	137-9-2A	Date Analyzed:	09/19/96	ConCal:	B963443
Sample Size:	0.900 L	Dilution Factor:	n/a	% Moisture:	n/a
Dry Weight:	n/a	Blank File:	B963444	% Lipid:	n/a
GC Column:	DB-5	Analyst:	MM	% Solids:	n/a

Analytes	Conc. (ppt)		TEF		Equivalent
2,3,7,8-TCDD	ND	x	1	=	0
1,2,3,7,8-PeCDD	ND	x	0.5	=	0
1,2,3,4,7,8-HxCDD	ND	x	0.1	=	0
1,2,3,6,7,8-HxCDD	ND	x	0.1	=	0
1,2,3,7,8,9-HxCDD	ND	x	0.1	=	0
1,2,3,4,6,7,8-HpCDD	ND	x	0.01	=	0
1,2,3,4,6,7,8,9-OCDD	ND	x	0.001	=	0
2,3,7,8-TCDF	ND	x	0.1	=	0
1,2,3,7,8-PeCDF	ND	x	0.05	=	0
2,3,4,7,8-PeCDF	ND	x	0.5	=	0
1,2,3,4,7,8-HxCDF	ND	x	0.1	=	0
1,2,3,6,7,8-HxCDF	ND	x	0.1	=	0
2,3,4,6,7,8-HxCDF	ND	x	0.1	=	0
1,2,3,7,8,9-HxCDF	ND	x	0.1	=	0
1,2,3,4,6,7,8-HpCDF	ND	x	0.01	=	0
1,2,3,4,7,8,9-HpCDF	ND	x	0.01	=	0
1,2,3,4,6,7,8,9-OCDF	ND	x	0.001	=	0

Total 2,3,7,8-TCDD Toxicity (1989 ITF) Equivalents: 0 ppt

ORGANIC ANALYSIS DATA PACKAGE

Harding Lawson Associates

Date: 9/26/96

Lab Name: ARDL, Inc.

ARDL Report No.: 300309

Samples Received at ARDL: 08/31/96

Project Name: Cannon AFB

CASE NARRATIVE

<u>Sample ID No.</u>	<u>Lab ID No.</u>	<u>Date Collected</u>	<u>Volatiles Analysis Date</u>
MWQ-D	300309-01	08/28/96	09/09/96
MWQ-DMS	300309-01MS	08/28/96	09/09/96
MWQ-DMSD	300309-01MD	08/28/96	09/09/96
MWQ	300309-02	08/28/96	09/09/96
MWQ-T	300309-03		09/09/96
VBLKA1	300309-01B1		09/09/96

20000A

ORGANIC ANALYSIS DATA PACKAGE

Harding Lawson Associates

Date: 9/26/96

Lab Name: ARDL, Inc.

ARDL Report No.: 300309

Samples Received at ARDL: 08/31/96

Project Name: Cannon AFB

CASE NARRATIVE

<u>Sample ID No.</u>	<u>Lab ID No.</u>	<u>Date Collected</u>	<u>SEMI-VOLATILES</u>	
			<u>Extr. Date</u>	<u>Analysis Date</u>
MWQ-D	300309-01	08/28/96	09/04/96	09/13/96
MWQ	300309-02	08/28/96	09/04/96	09/13/96
MWQMS	300309-02MS	08/28/96	09/04/96	09/13/96
MWQMSD	300309-02MD	08/28/96	09/04/96	09/13/96
BLANK B5559	300309-02B1		09/04/96	09/13/96

20000B

ORGANIC ANALYSIS DATA PACKAGE

Harding Lawson Associates

Date: 9/26/96

Lab Name: ARDL, Inc.

ARDL Report No.: 300309

Samples Received at ARDL: 08/31/96

Project Name: Cannon AFB

CASE NARRATIVE

<u>Sample ID No.</u>	<u>Lab ID No.</u>	<u>Date Collected</u>	<u>PESTICIDE/PCB</u>	
			<u>Extr. Date</u>	<u>Analysis Date</u>
MWQ-D	300309-01	08/28/96	09/04/96	09/12/96
MWQ	300309-02	08/28/96	09/04/96	09/12/96
MWQMS	300309-02MS	08/28/96	09/04/96	09/12/96
MWQMSD	300309-02MD	08/28/96	09/04/96	09/12/96
	300309-B5558		09/04/96	09/11/96
	300309-SPB5558		09/04/96	09/12/96

20000C

ORGANIC ANALYSIS DATA PACKAGE

Harding Lawson Associates

Date: 9/26/96

Lab Name: ARDL, Inc.

ARDL Report No.: 300309

Samples Received at ARDL: 08/31/96

Project Name: Cannon AFB

CASE NARRATIVE

<u>Sample ID No.</u>	<u>Lab ID No.</u>	<u>Date Collected</u>	<u>HERBICIDE</u>	
			<u>Extr. Date</u>	<u>Analysis Date</u>
MWQ-D	300309-01	08/28/96	09/03/96	09/13/96
MWQ	300309-02	08/28/96	09/03/96	09/13/96
MWQMS	300309-02MS	08/28/96	09/03/96	09/13/96
MWQMSD	300309-02MD	08/28/96	09/03/96	09/13/96
	300309-B5561		09/03/96	09/12/96
	300309-SPB5561		09/03/96	09/12/96

20000 D

ORGANIC ANALYSIS DATA PACKAGE

Harding Lawson Associates

Date: 9/26/96

Lab Name: ARDL, Inc.

ARDL Report No.: 300309

Samples Received at ARDL: 08/31/96

Project Name: Cannon AFB

CASE NARRATIVE

<u>Sample ID No.</u>	<u>Lab ID No.</u>	<u>Date Collected</u>	<u>PNA</u>	
			<u>Extr. Date</u>	<u>Analysis Date</u>
MWQ-D	300309-01	08/28/96	09/04/96	09/13/96
MWQ	300309-02	08/28/96	09/04/96	09/13/96
MWQMS	300309-02MS	08/28/96	09/04/96	09/13/96
MWQMSD	300309-02MD	08/28/96	09/04/96	09/13/96
	300309-B5560		09/04/96	09/13/96
	300309-SPB5560		09/04/96	09/13/96

20000E



Harding Lawson Associates
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 707 Seventeenth Street
 Denver, Colorado 80202
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 Telecopy 303/292-5411

Page 1 of 2
 AR - ARDL
 Lab I.D.: NA

Work Authorization Number: _____
 3
 Sample Round/Episode: _____

CHAIN-OF-CUSTODY RECORD

Project Name/Project No.: Cannon Air Force Base 33364 2.4.2		Sample Date: 8/28/96	Sample Technique: Grab	Site Identification: MWQ
Sampler: (Signature) <i>Jeffrey Minckal</i>		Sample Depth: (Ft) NA	File-Type/Matrix: CGW/Groundwater	Site Type: Well
TIME	TAG NO.	ANALYSIS REQUIRED	CONTAINER	PRESERVATIVE/REMARKS
1310	CN00128	VOCs/8260	40ml VOA vial	HCl, pH<2, Cool 4°C
1310	CN00129	VOCs/8260	40ml VOA vial	HCl, pH<2, Cool 4°C
1310	CN00130	VOCs/8260	40ml VOA vial	HCl, pH<2, Cool 4°C
1310	CN00131	VOCs/8260	40ml VOA vial	HCl, pH<2, Cool 4°C
1310	CN00132	VOCs/8260	40ml VOA vial	HCl, pH<2, Cool 4°C
1310	CN00133	VOCs/8260	40ml VOA vial	HCl, pH<2, Cool 4°C
1310	CN00134	VOCs/8260	40ml VOA vial	HCl, pH<2, Cool 4°C
1310	CN00135	VOCs/8260	40ml VOA vial	HCl, pH<2, Cool 4°C
1310	CN00136	VOCs/8260	40ml VOA vial	HCl, pH<2, Cool 4°C
1320	CN00137	SVOCs/8270	1L glass, amber	Cool 4°C
1320	CN00138	SVOCs/8270	1L glass, amber	Cool 4°C
1320	CN00139	SVOCs/8270	1L glass, amber	Cool 4°C
1331	CN00140	Dioxins/8280	1L glass, amber	Cool 4°C
1331	CN00141	Dioxins/8280	1L glass, amber	Cool 4°C
1331	CN00142	Dioxins/8280	1L glass, amber	Cool 4°C
1322	CN00143	PAH/8310	1L glass, amber	Cool 4°C
1322	CN00144	PAH/8310	1L glass, amber	Cool 4°C
1322	CN00145	PAH/8310	1L glass, amber	Cool 4°C
1325	CN00146	Pesticides/PCBs/8080	1L glass, amber	Cool 4°C
1325	CN00147	Pesticides/PCBs/8080	1L glass, amber	Cool 4°C
1325	CN00148	Pesticides/PCBs/8080	1L glass, amber	Cool 4°C
1328	CN00149	Herbicides/8150	1L glass, amber	Cool 4°C
Relinquished by: (Signature) <i>Jeffrey D. Minckal</i>		Date/Time 8/29/96 1400	Received by: (Signature)	
Relinquished by: (Signature)		Date/Time 8/31/96 1000	Received by: (Signature) <i>W. Lockrum</i>	
Relinquished by: (Signature)		Date/Time	Received by: (Signature)	
Relinquished by: (Signature)		Date/Time	Received by: (Signature)	

Airbill Number 1553935423



Harding Lawson Associates
 2400 Arco Tower
 707 Seventeenth Street
 Denver, Colorado 80202
 303/292-5365
 Telecopy 303/292-5411

Page 1 of 1
 AR - ARDL
 Lab I.D.: NA
 Work Authorization Number: 3
 Sample Round/Episode: 3

CHAIN-OF-CUSTODY RECORD

Project Name/Project No.: Cannon Air Force Base 33364 2.4.2		Sample Date: <i>NA</i>	Sample Technique: Grab	Site Identification: MWQ-T
Sampler: (Signature) <i>NA for trip blanks</i>		Sample Depth: (Ft) <i>NA</i>	File-Type/Matrix: CGW/Groundwater	Site Type: Well - TRIP
TIME	TAG NO.	ANALYSIS REQUIRED	CONTAINER	PRESERVATIVE/REMARKS
<i>NA</i>	CN00187	VOCs/8260	40ml VOA vial	HCl, pH<2, Cool 4°C
<i>NA</i>	CN00188	VOCs/8260	40ml VOA vial	HCl, pH<2, Cool 4°C
<i>Air Bubbles present in trip blanks upon receipt of sample containers from ARDL. Jm.</i>				
<i>↳ This includes trip blanks sent with sample containers to USAFCE MRD Lab. Jm</i>				

Relinquished by: (Signature) <i>Jeffrey D. Minchak</i>	Date/Time <i>8/29/96 1400</i>	Received by: (Signature)
Relinquished by: (Signature)	Date/Time <i>8/31/96 1000</i>	Received by: (Signature) <i>Dr. Cochran</i>
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Relinquished by: (Signature)	Date/Time	Received by: (Signature)

Airbill Number 1553935423

COOLER RECEIPT REPORT
ARDL INC.

ARDL #: 300309

Cooler # 129
Number of Coolers In Shipment: 3

Project: Cannon AFB

Date Received: 8-31-96

A. **PRELIMINARY EXAMINATION PHASE:** Date cooler was opened: 8-31-96 (Signature) [Signature]

1. Did cooler come with a shipping slip (airbill, etc.)? YES NO
If YES, enter carrier name and airbill number here: FedEx 989 5358 277
CUSTOMER PACKAGE TRACKING NUMBER - PULL UP PURPLE TAB

2. Were custody seals on outside of cooler? YES NO N/A
How many and where? 1 (front) Seal Date: 8-29-96 Seal Name: Jeffrey Munchak

3. Were custody seals unbroken and intact at the date and time of arrival? YES NO N/A

4. Did you screen samples for radioactivity using a Geiger Counter? YES NO

5. Were custody papers sealed in a plastic bag and taped inside to the lid? all in 1 cooler (#30) YES NO

6. Were custody papers filled out properly (ink, signed, etc.)? YES NO N/A

7. Were custody papers signed in appropriate place by ARDL personnel? YES NO N/A

8. Was project identifiable from custody papers? If YES, enter project name at the top of this form. YES NO N/A

9. Was a separate container provided for measuring temperature? YES NO 8-31-96 Cooler Temp. 3.8°C

B. **LOG-IN PHASE:** Date samples were logged-in: 9-3-96 (Signature) [Signature]

10. Describe type of packing in cooler: ice / bubble pack

11. Were all bottles sealed in separate plastic bags? YES NO N/A

12. Did all bottles arrive unbroken and were labels in good condition? YES NO

13. Were bottle labels complete? YES NO

14. Did all bottle labels agree with custody papers? YES NO

15. Were correct containers used for the tests indicated? YES NO

16. Was pH correct on preserved water samples? YES NO N/A

17. Was a sufficient amount of sample sent for tests indicated? YES NO

18. Were bubbles absent in VOA samples? If NO, list by sample #: MWQ-T (2 of 3) YES NO N/A

19. Was the ARDL project coordinator notified of any deficiencies? YES NO N/A

Comments and/or Corrective Action:

(By: Signature) [Signature] Date 9/3/96

Airbill

Recipient's Copy



1553935423

Questions? Call 1-800-Go-FedEx (1-800-463-3339)

From
 S/2/1/11
 Sender's FedEx Account Number [Redacted]

Address
 Jeffrey Murchink
 Phone 615-242-1017
 Dept./Floor/Suite/Room
 212
 State AL Zip 37107

Your Internal Billing Reference Information 23314-241

To
 ARDL, Inc
 Phone 415-244-2225
 Dept./Floor/Suite/Room
 15 East Airport
 State IL Zip 62514

For HCLJ at FedEx Location check here
 Hold Weekday
 Hold Saturday
For Saturday Delivery check here
 Extra Charge

Express Package Service Packages under 150 lbs.
 FedEx Standard Overnight
 FedEx 2Day
 FedEx Government Overnight
 NEW FedEx First Overnight

Express Freight Service Packages over 150 lbs.
 FedEx Overnight Freight
 FedEx 2Day Freight
 FedEx Express Saver Freight

5 Packaging
 Other Packaging
 Dangerous Goods can not be shipped in FedEx packaging.

6 Special Handling
 Dangerous Goods as per attached Shipper's Declaration
 Dangerous Goods Shipper's Declaration not required
 Cargo Aircraft Only

7 Payment
 Bill to: Sender
 Recipient
 Third Party
 Credit Card
 Cash/Check

Total Packages	Total Weight	Total Declared Value	Total Charges
3	170	\$.00	\$

Signature Release Unavailable

Rev. Date 3/96
 PART #148200
 ©1994-96 FedEx
 PRINTED IN U.S.A.

241

TRACKING NUMBER

1553935423

Page 1 of 1 Pages

Two completed and signed copies of this Declaration must be handed to the operator.

TRANSPORT DETAILS

Airport of Departure: Albuquerque

Airport of Destination: Albuquerque

Shipment type: NON-RADIOACTIVE

WARNING
 Failure to comply in all respects with the applicable Dangerous Goods Regulations may be in breach of the applicable law, subject to legal penalties. This Declaration must not, in any circumstances, be completed and/or signed by a consolidator, a forwarder or an IATA cargo agent.

NATURE AND QUANTITY OF DANGEROUS GOODS					Quantity and type of packing	Packing Inst.	Authorization
Dangerous Goods Identification							
Proper Shipping Name	Class or Division	UN or ID No.	Packing Group	Subsidiary Risk			
THIS REGULATED SUBSTANCE	9	2027			3 Plastic Box Coolers 1x 9.86 Liters 1x 7.50 Liters 1x 9.00 Liters	906	

Additional Handling Information

I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name and are classified, packaged, marked, and labelled, placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Emergency Telephone Number (Required for US Origin or Destination Shipments) 705-275-8445

Name/Title of Signatory: Jeffrey Murchink Geologist
 Place and Date: Albuquerque NM 8/29/11
 Signature: [Signature]

ACCEPTABLE FOR PASSENGER AIRCRAFT. THIS SHIPMENT CONTAINS RADIOACTIVE MATERIAL INTENDED FOR USE IN, OR INCIDENT TO, RESEARCH, MEDICAL DIAGNOSIS, OR TREATMENT.

Terms
 Destination
 Express
 refer to
 Agree
 you are
 advised
 any time
 contact
 Guide
 our Agre
 Respo
 Airbill
 goods
 packag
 our best
 an certi
 Respo
 part of
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 And
 • Certif
 actual
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 \$100
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 • In any
 case of
 actual
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MULTIPLE PACKAGE SHIPMENT LABELS

SHIPMENT DATE	
MASTER AIRBILL NUMBER	
2 OF 2	989 5358 261
DESCRIPTION	
3 OF 3	989 5358 277
DESCRIPTION	
OF	989 5358 286
DESCRIPTION	
OF	989 5358 295
DESCRIPTION	
OF	989 5358 304
DESCRIPTION	

- We won't be liable.
 - for your acts or omissions including but not limited to improper or insufficient packing, securing, marking, or addressing or those of the recipient or anyone else with an interest in the package
 - if you or the recipient violate any of the terms of an Agreement
 - for loss or damage to shipments of prohibited items
 - for loss, damage, or delay caused by events we cannot control, including but not limited to acts of God, perils of the air, weather conditions, acts of public enemies, war, strikes, civil commotions, or acts of public authorities with actual or apparent authority.

Declared Value Limits

- The highest declared value allowed for FedEx Letter and FedEx Pak shipments is \$500.
- For other shipments, the highest declared value allowed is \$50,000 unless your package contains items of "extraordinary value," in which case the highest declared value allowed is \$500.
- Items of "extraordinary value" include shipments containing such items as artwork, jewelry, furs, precious metals, negotiable instruments, and other items listed in our Service Guide.
- You may send more than one package on this airbill and fill in the total declared value for all packages, not to exceed the \$100, \$500 or \$50,000 per package limit described above. (Example: 5 packages can have a total declared value of up to \$250,000.) In that case, our liability is limited to the actual value of the package(s) lost or damaged, but may not exceed the maximum allowable declared value(s) or the total declared value, whichever is less. You are responsible for proving the actual loss or damage.

Filing A Claim: YOU MUST FILE ALL CLAIMS IN WRITING and notify us of your claim within 90 days of the date of the current Service Guide.

We'll consider your claim filed if you notify us of your claim. Service Department at 1-800-363-9000 or online. You claim in writing as described herein.

Within 90 days after you notify us of your claim, you must send us all the information you have about the claim. It is your duty to act on any claim until you have paid all transportation charges, and you may not deduct the amount of your claim from those charges.

If the recipient accepts your package without noting any damage on the delivery receipt, we will assume the package was delivered in good condition. For us to process your claim, you must make the original shipping cartons and packing available for inspection.

Right To Inspect: We may review or inspect and inspect your packages before or after we give them to the carrier.

Right Of Refection: We reserve the right to reject a shipment when such shipment is likely to cause injury or damage to other shipments, equipment, or personnel and the shipment is prohibited by law or the shipment would violate any terms of our Agreement or our current Service Guide.

Carrier Services: C.O.D. SERVICE IS NOT AVAILABLE WITH THIS AIRBILL. If C.O.D. Service is required, please use a Federal Express C.O.D. airbill.

Air Transportation Tax Included: Our basic rate includes a federal tax required by Internal Revenue Code Section 4211 on the air transportation portion of this service.

Money-Back Guarantee: In the event of untimely delivery, Federal Express will at your request and with some limitations, refund or credit all transportation charges. See current Service Guide for more information.

Form 14-189, 4-01-00 • Rev. 01

GUIDELINES FOR COMPLETING FORM
 (For complete details, see current IATA Dangerous Goods Regulations)
 -Form must be legible-

- Shipper - Enter the name and address of shipper
- Consignee - Enter the name and address of recipient
- Page of Pages - Enter page number and total number of pages, i.e. Page 1 of 1 for a single page declaration
- Transport Details - Delete the option that does not apply to this shipment
- Shipment Type - Delete the option that does not apply to this shipment
- Proper Shipping Name - List the proper shipping name and, if applicable, the technical name in parenthesis
- Class or Division - List the class or division number and, if applicable, compatibility group
- UN or ID Number - List the UN or ID number preceded with "UN" or "ID"
- Packing Group - List the appropriate packing group, if applicable
- Subsidiary Risk - List the class or division number of the subsidiary risk, if applicable
- Quantity and Type of Packaging - List the number of packages, the type of packing, and the net quantity in each package, i.e. "5 fibreboard box X 2kg"
- Packing Instruction - Enter the packing instruction number
- Special Provisions - Enter the words "Limited Quantity", if applicable; list any special provision(s) or approval(s) if applicable
- Additional Handling Information - Enter any required special handling information
- Emergency Telephone Number - Enter your 24-hour emergency contact number

Name/Title of Signatory - Enter name and job title of shipper

Place and Date - Enter the city and date of shipment

Signature - Sign the form (must be a complete signature)

All alterations must be signed with the same signature used to sign the declaration.

FedEx cannot make any changes/additions/deletions to this declaration except the Airbill number/Airport of Departure/Airport of Destination.

If you need assistance completing this form and/or with the marking and labelling requirements, contact the FedEx Dangerous Goods Hotline at 800-GO-FEDEX, ext 922-1665.

RADIOACTIVE MATERIAL SHIPMENT INFORMATION

Radionuclide	-	Element and mass number
Form	-	Special form or chemical and physical form
Activity	-	Use appropriate units. The SI unit for activity is becquerel (Bq). Other units: TBq-Terabecquerels
Label	-	White I Yellow II or III or None when no label required
Transport Index	-	For Yellow II and Yellow III labels see pages only
Package Identification	-	ICPD Certificate of Compliance with the return number or Certificate of Shipment Authority identification number or package type, if applicable, and not included in identification number or package identification if none of above not applicable

Warning: Failure of the shipper to comply in all respects with applicable DOT regulations (49 CFR) or with ICAO Dangerous Goods Regulations may result in a violation of law and subject the shipper to legal liability.

DOCUMENT
CONTROL

Triangle Laboratories, Inc.

801 Capitola Drive
Durham, NC 27713-4411
919-544-5729

P.O. Box 13485
Research Triangle Park, NC 27709-3485
Fax # 919-544-5491

Custody Seal : Present/Intact	Sample Seals: Present	TLI Project Number : 38683	Book
Chain of Custody : Present	Accept.Cond.: YES		
Sample Tags : Present		Client: AR001	137
Sample Tag Numbers: Listed		AROL. Inc.	
SMO Forms : N/A		Date Received : 09/04/96	By <i>B. Hino</i>

Ice Chest	ICE	Temp 3.0 C	Carrier and Number : UPS	Page 9
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TLI Number	Client ID	Matrix Location	To LAB Date/Init	To STORAGE Date/Init	To LAB Date/Init	To STORAGE Date/Init	To LAB Date/Init	To STORAGE Date/Init	To ARCHIVE Date/Init	DISPOSED Date/Init
137-9-1	300309-1	WATER	9/5/96	depleted						
		CO1	<i>nu</i>	<i>nu</i>						
137-9-2A	300309-2	WATER								
		CO1								
137-9-2B	300309-2	WATER								
		CO1								
137-9-2C	300309-2	WATER								
		CO1								

Receiving Remarks:

Archive Remarks:

TRIANGLE LABORATORIES, INC.
 Transfer Chain-of-Custody Form
 Project 38683

Transfer From: DWLI5 To: DMS5

	Initials..	Date.....	Time...
Released by:	<u>AM</u>	<u>09/11/96</u>	<u>14:24</u>
Accepted by:	<u>BB</u>	<u>9/11/96</u>	<u>21:00</u>

MILES.ID.....	TLI_No.....	Cust.Id.....
38683- -000	TLI Blank	TLI Water Blank
38683- -001	137-9-1	300309-1
38683- -002	137-9-2A	300309-2
38683- -003	137-9-2BMS	300309-2 Matrix Spike
38683- -004	137-9-2CMSD	300309-2 Matrix Spike Dup

-----XfrCOC (Rev 11/01/94)-----

Additional comments or instructions:

Appendix III

**CASE NARRATIVES FOR GROUNDWATER SAMPLES
COLLECTED AUGUST 28, 1996**

INORGANIC ANALYSIS DATA PACKAGE

Harding Lawson Associates

Date: 09/13/96

ARDL Report No.: 300309

Lab Name: ARDL, Inc.

Samples Received at ARDL: 08/31/96

Project Name: Cannon AFB

CASE NARRATIVE

<u>Sample ID No.</u>	<u>Date Collected</u>	<u>Lab ID No.</u>	<u>Analysis Requested</u>
MWQ-D	08/28/96	300309-1	Total Metals(1), Cyanide, Sulfide
MWQ	08/28/96	300309-2	Total Metals(1), Cyanide, Sulfide, TOC, TOX

(1) Including aluminum, antimony, arsenic, barium, beryllium, cadmium, calcium,, chromium, cobalt, copper, iron, lead, magnesium, manganese, mercury, nickel, potassium, selenium, silver, sodium, thallium, tin, vanadium, and zinc.

The quality control data are summarized as follows:

LABORATORY CONTROL SAMPLES

Percent recovery of the LCS analysis was within control limits.

PREPARATION BLANKS

Results of the preparation blank was within control limits.

MATRIX SPIKES

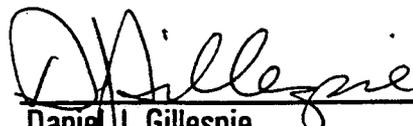
Percent recovery of all matrix spikes and matrix spike duplicates were within control limits.

DUPLICATES

RPD on all duplicate analyses were within control limits.

All duplicate analyses are reported as MS/MSD except calcium, magnesium, potassium and sodium which are reported as sample/duplicate.

Release of the data contained in this package has been authorized by the Technical Services Manager or his designee as verified by the following signature.



Daniel J. Gillespie
Technical Services Manager

10001

ORGANIC ANALYSIS DATA PACKAGE

Harding Lawson Associates

Date: 9/26/96

Lab Name: ARDL, Inc.

ARDL Report No.: 300309

Samples Received at ARDL: 08/31/96

Project Name: Cannon AFB

CASE NARRATIVE

VOLATILE FRACTION - METHOD 8260

Three (3) water samples were received by ARDL, Inc. on August 31, 1996, for VOA analysis by GC/MS. All analyses were performed according to low level protocol.

Upon final review of the data package, it was observed that sample MWQ-D exhibited TIC peaks at the end of the chromatogram. Investigation indicated a highly contaminated sample had been purged on the port previously. In the matrix spike/matrix spike duplicate evaluation of sample MWQ-D and the analysis of sample MWQ no TIC peaks were detected. No target compounds were detected in any of the analyses. The TICs in sample MWQ-D were not believed to be sample related and were not reported.

No other unusual problems were encountered during the sample analyses.

SEMI-VOLATILE FRACTION - METHOD 8270

Two (2) water samples were received by ARDL, Inc. on August 31, 1996, for BNA analysis by GC/MS. All analyses were performed according to low level protocol.

No unusual problems were encountered during the sample analyses.

PESTICIDE/PCB FRACTION - METHOD 8080

Two (2) water samples were received by ARDL, Inc. on August 31, 1996, for Pesticide/PCB analysis. The samples were extracted and concentrated per SW-846.

The samples were originally analyzed in a sequence which was calibrated for pesticides and PCB 1260. However, the closing check standard failed criteria for the pesticide analytes, but passed for the PCB component. The samples were then reanalyzed using calibration for the pesticide components only which passed all calibration criteria. Therefore, the sample data contain two chromatograms for each sample; one for pesticide only and one for PCB only.

20000 F

ORGANIC ANALYSIS DATA PACKAGE

Harding Lawson Associates

Date: 9/26/96

Lab Name: ARDL, Inc.

ARDL Report No.: 300309

Samples Received at ARDL: 08/31/96

Project Name: Cannon AFB

CASE NARRATIVE (Continued)

PESTICIDE/PCB FRACTION - METHOD 8080 (Continued)

The blank sample indicated recovery of decachlorobiphenyl outside of QC limits on the high end. As recovery of the additional surrogate, tetrachloro-m-xylene, was within QC limits, no further analysis was performed.

The matrix spike duplicate sample and spike blank sample exhibited recoveries of the target analytes outside of QC limits on the high end, contributing to a high %RPD observed for the MS/MSD samples. All surrogate recoveries for the QC samples, as well as field samples, were acceptable. In addition, MS recoveries of all compounds, except DDT, were within QC limits. It should be noted that there were not any target compounds identified in the field samples. Re-extraction of the samples was not possible due to lack of field sample volume remaining.

No additional problems were encountered in the analyses of these samples.

HERBICIDE FRACTION - METHOD 8150

Two (2) water samples were received by ARDL, Inc. on August 31, 1996, for Herbicide analysis. The samples were extracted and concentrated per SW-846.

The MS/MSD and spike blank samples indicated recovery of 2,4-D slightly outside of QC limits. Recovery of the remaining spike analytes, as well as surrogate recoveries, were acceptable. Due to lack of field sample volume remaining, re-extraction and reanalysis of the samples could not be performed.

No additional problems were encountered in the analyses of these samples.

PNA FRACTION - METHOD 8310

Two (2) water samples were received by ARDL, Inc. on August 31, 1996, for PNA analysis. The samples were extracted and concentrated per SW-846. The samples were analyzed using a diode-array detector for both quantitative and confirmational purposes.

ORGANIC ANALYSIS DATA PACKAGE

Harding Lawson Associates

Date: 9/26/96

Lab Name: ARDL, Inc.

ARDL Report No.: 300309

Samples Received at ARDL: 08/31/96

Project Name: Cannon AFB

CASE NARRATIVE (Continued)

PNA FRACTION - METHOD 8310 (Continued)

Some manual integrations were performed on the standards, MS/MSD, spike blank and sample MWQ-D due to incomplete or excessive integration of peaks by the software used for analysis.

The %RPD of the spike analytes, acenaphthylene and fluoranthene, was outside of QC limits. As all samples, including the spike blank, exhibited acceptable recovery for these analytes, no further analysis was performed.

No additional problems were encountered in the analyses of these samples.

ORGANIC DATA REPORTING QUALIFIERS

The following organic data reporting qualifiers are used as required.

- U - Indicates compound was analyzed for but not detected. The sample quantitation limit must be corrected for dilution and for percent moisture.
- J - Indicates an estimated value. This flag is used either when estimating a concentration for tentatively identified compounds where a 1:1 response is assumed, or when the mass spectral data indicate the presence of a compound that meets the identification criteria but the result is less than the sample quantitation limit but greater than zero.
- N - Indicates presumptive evidence of a compound. This flag is only used for tentatively identified compounds, where the identification is based on a mass spectral library search. It is applied to all TIC results. For generic characterization of a TIC, such as chlorinated hydrocarbon, the N code is not used.
- P - This flag is used for a pesticide/Aroclor target analyte when there is greater than 25% difference for detected concentrations between the two GC columns (see Form X). The lower of the two values is reported on Form I and flagged with a "P".

ORGANIC ANALYSIS DATA PACKAGE

Harding Lawson Associates

Date: 9/26/96

Lab Name: ARDL, Inc.

ARDL Report No.: 300309

Samples Received at ARDL: 08/31/96

Project Name: Cannon AFB

CASE NARRATIVE (Continued)

ORGANIC DATA REPORTING QUALIFIERS (Continued)

- C - This flag applies to pesticide results where the identification has been confirmed by GC/MS. If GC/MS confirmation was attempted but was unsuccessful, do not apply this flag, instead use a laboratory-defined flag.
- B - This flag is used when the analyte is found in the blank as well as the sample. It indicates possible/probable blank contamination and warns the data user to take appropriate action. This flag must be used for a TIC as well as for a positively identified target compound.
- E - This flag identifies compounds whose concentrations exceed the calibration range of the GC/MS instrument for that specific analysis. If one or more compounds have a response greater than full scale, except as noted in Exhibit D, the sample or extract must be diluted and re-analyzed according to the specifications in Exhibit D. All such compounds with a response greater than full scale should have the concentration flagged with an "E" on the Form 1 for the original analysis. If the dilution of the extract causes any compounds identified in the first analysis to be below the calibration range in the second analysis, then the results of both analyses shall be reported on separate copies of Form 1. The Form 1 for the diluted sample shall have the "DL" suffix appended to the sample number.
- D - This flag identifies all compounds identified in an analysis at a secondary dilution factor. If a sample or extract is re-analyzed at a higher dilution factor, as in the "E" flag above, the "DL" suffix is appended to the sample number on the Form 1 for the diluted sample, and all concentration values reported on that Form 1 are flagged with the "D" flag.

ORGANIC ANALYSIS DATA PACKAGE

Harding Lawson Associates

Date: 9/26/96

Lab Name: ARDL, Inc.

ARDL Report No.: 300309

Samples Received at ARDL: 08/31/96

Project Name: Cannon AFB

CASE NARRATIVE (Continued)

ORGANIC DATA REPORTING QUALIFIERS (Continued)

A - This flag indicates that a TIC is a suspected aldol-condensation product.

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized for the Laboratory Manager or his designee, as verified by the following signature.



Daniel J. Gillespie
Technical Services Manager

TRIANGLE LABS

CASE NARRATIVE

**Analysis of Samples for the Presence of
Polychlorinated Dibenzo-*p*-Dioxins and Dibenzofurans by
High-Resolution Chromatography / Low-Resolution Mass Spectrometry**

Method 8280 Rev. 0 (9/86)

Date: September 22, 1996
Client ID: ARDL, Inc.
P.O. Number:
TLI Project Number: 38683

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Rev. 06/21/95

Triangle Laboratories, Inc.
801 Capitola Drive
Durham, NC 27713-4411
919-544-5729

P.O. Box 13485
Research Triangle Park, NC 27709-3485
Fax # 919-544-5491

Overview

The samples and any associated QC samples were extracted and analyzed according to procedures described in EPA Method 8280. Any particular difficulties encountered during the sample handling by Triangle Laboratories will be discussed in the QC Remarks section below. Results reported relate only to the items tested.

Sample Extraction

The water samples were separatory funnel extracted with methylene chloride to produce a final extract. Eighty percent of the extract was archived while twenty percent was processed through the cleanup procedures.

The cleanup of extracts may include the use of bulk acid/base washes, and acid silica, basic silica, activated alumina, and carbon column liquid chromatography.

Sample Analysis

A five point initial calibration curve was analyzed, in triplicate, on each instrument used for sample analysis. Calibration ranges are listed below and are based on sample size. A continuing calibration check and a column performance evaluation are analyzed at the beginning of each twelve hour period of sample analysis. The column performance solution, which is used to evaluate the GC resolution is also performed at the end of each twelve hour analytical sequence.

Calibration Ranges

<u>Compounds</u>	<u>Solid</u> (10 g sample)	<u>Water</u> (1 L sample)	
	ppb ($\mu\text{g}/\text{Kg}$)	ppt (ng/L)	ppb ($\mu\text{g}/\text{L}$)
TCDD/TCDF PeCDD/PeCDF	1-20	10-200	0.01-0.2
HxCDD/HxCDF HpCDD/HpCDF	2.5-50	25-500	0.025-0.5
OCDD/OCDF	5-100	50-1000	0.05-1.0

Dilutions are performed only for peaks that are saturated and exceed the dynamic range of the instrument. Dilutions are not routinely performed for analyses that may have concentrations above the calibration range unless requested by the client.

Some of the labeled standards used in the analysis have ion fragments with the same mass as the quantitation mass of some of the analytes. These lower mass fragments appear as peaks or 'breakthrough' in the analyte channels. This can often be witnessed in the cases of $^{13}\text{C}_{12}$ -TCDF internal standard appearing in the TCDD analyte channels, $^{13}\text{C}_{12}$ -HxCDD internal and recovery standards appearing the HpCDF analyte channels, and $^{13}\text{C}_{12}$ -HpCDF internal standard appearing the HpCDD analyte channels. For most of the above situations, the interfering peaks due to the labeled standards lie outside the retention time window of the analyte. In the case of TCDD/TCDF, the interferences usually lie within the retention time window. Whenever breakthrough peaks occur from the labeled standards, these peaks are reported as EMPCs, and may be considered artifacts from the labeled standards. This is a limitation caused by the use of low-resolution mass spectrometry, recommended in the method.

Quality Control Samples

A laboratory method blank, identified as the TLI Blank, was prepared along with the samples. One such sample per 20 field samples (or less) of a given matrix is prepared.

Matrix spike (MS) and matrix spike duplicate (MSD) samples were processed in conjunction with sample 300309-2. A report summarizing the analyte percent recoveries and the relative percent differences (RPDs) for these samples is included in the data package.

The advisory quality control range for internal and clean-up standard percent recoveries is 40-120 percent recovery (25-120 for the OCDD internal standard). If recoveries are below the advisory range, analyte results are judged to be valid as long as the ratio of signal to noise for the standard is greater than ten to one and the percent recovery is greater than ten percent.

Quality Control Remarks

This release of this particular set of ARDL, Inc. analytical data by Triangle Laboratories was authorized by the Quality Control Chemist who has reviewed each sample data package individually following a series of inspections/reviews. When applicable, general deviations from acceptable QC requirements are identified below and comments are made on the effect of these deviations upon the validity and reliability of the results. Specific QC issues associated with this particular project are:

Sample receipt: Two water samples (one sample in triplicate and the other one in a single container) were received from ARDL, Inc. at 3.0° C in good condition on September 4, 1996 and were stored in a refrigerator at 4.0° C until the time of extraction.

Sample Preparation Laboratory: None

Mass Spectrometry: None

Data Review: The internal and cleanup standards for these samples are within the QC advisory limits of 40-120 percent (25-120 percent for the OCDD internal standard) or meet ten to one signal to noise criteria in all cases.

The ion-abundance ratio of the 1,2,3,4,7,8,9-HpCDF analyte in the matrix spike is slightly outside the QC limits. Since all the analyte percent recoveries and the relative percent differences are within the QC limits (of 50-150% and less than 50% RPD, respectively), the results are not considered to be significantly affected and are judged to be valid.

Other Comments: No 2,3,7,8-substituted target analytes were detected in the TLI Blank above the target detection limit (TDL).

Sample Calculations:

Method 8280 does not specify which of the two monitored masses to use for quantitation of all of the isotope-labeled standards. Following the pattern established by the method, we have selected which mass to use for each analyte and standard based on the theoretical ratio. For groups with theoretical ratios that are greater than one (the pentas, hexas and heptas), the first monitored mass should be larger and is therefore used for quantitation. For channels with theoretical ratios of less than one (the tetras and octas), the second monitored mass should generally be larger and is used for quantitation.

Analyte Concentration

The concentration or amount of any analyte is calculated using the following expression.

$$C_{(\sigma)} = \frac{A_{\sigma} * Q_{\beta}}{A_{\beta} * RRF_{(\sigma)} * W}$$

Where:

$C_{(\sigma)}$ is the concentration or amount of a given analyte,

A_{σ} is the integrated ion current of the quantitation ion of the analyte,

A_{β} is the integrated ion current of the quantitation ion of the corresponding internal standard,

Q_{β} represents the amount of internal standard added to the sample before extraction,

$RRF_{(\sigma)}$ is the analyte relative response factor from the continuing calibration and,

W is the sample weight or volume

Detection Limits

The detection limit reported for a target analyte was derived from a method validation study performed by Triangle Laboratories, Inc. The reported detection limit has been adjusted for each sample using the actual sample size extracted and any dilution factors associated with that sample analysis.

Data Flags

In order to assist with data interpretation, data qualifier flags are used on the final reports. Please note that all data qualifier flags are subjective and are applied as consistently as possible. Each flag has been reviewed by two independent Chemists and the impact of the data qualifier flag on the quality of the data discussed above. The most commonly used flags are:

A 'B' flag is used to indicate that an analyte has been detected in the laboratory method blank as well as in an associated field sample. The 'B' flag will be used only when the concentration of analyte found in the sample is less than 20 times that found in the associated blank. This flag denotes possible contribution of background laboratory contamination to the concentration or amount of that analyte detected in the field sample. Under Triangle Laboratories guidelines, a laboratory blank is acceptable if the analyte levels are all below the target detection limits (TDLS) or if the contamination levels are less than 5% of the levels detected in the associated field samples. If these conditions are satisfied or if the blank is unable to be reextracted, the interpretation of the contamination levels relative to the samples should be as follows: 1) analyte quantitations should be considered valid if the level of blank contamination is less than five percent of the level detected in the field sample, 2) analyte quantitations should be considered estimated if the analyte level in the sample is five to twenty times the level of the analyte in the blank, or 3) analytes whose level in a sample is the same as or less than five times the level detected in the associated blank should be considered present likely due to laboratory contamination and not native to the sample.

An 'E' flag is used to indicate that a PCDF peak has eluted at the same time as the associated diphenyl ether (DPE) and that the DPE peak intensity is ten percent or more of the total PCDF peak intensity. Total PCDF values are flagged 'E' if the total DPE contribution to the total PCDF value is greater than ten percent. All PCDF peaks that are significantly influenced by the presence of DPE peaks are quantitated with EMPC values, regardless of the isotopic abundance ratio. These EMPC values are most likely overestimated due to the DPE contribution to the peak area.

An 'I' flag is used to indicate labeled standards have been interfered with on the GC column by coeluting, interferent peaks. The interference may have caused the standard's area to be overestimated. All quantitations relative to this standard, therefore, may be underestimated.

A 'PR' flag is used to indicate that a GC peak is poorly resolved. This resolution problem may be seen as two closely eluting peaks without a reasonable valley between the peak tops, overly broad peaks, or peaks whose shapes vary greatly from a normal distribution. The concentrations or amounts reported for such peaks are most likely overestimated.

An 'RO' flag is used to indicate that a labeled standard has an ion abundance ratio that is outside of the acceptable QC limits, most likely due to a coeluting interference. This may have caused the percent recovery of the standard to be overestimated. All quantitations versus this standard, therefore, may be underestimated.

An 'S' flag indicates that the response of a specific PCDD/PCDF isomer has exceeded the normal dynamic range of the mass spectrometer detection system. The corresponding signal is saturated and the reported analyte concentration is a 'minimum estimate'. When the 'S' qualifier is used in the reporting of 'totals', there is saturation of one (not necessarily from a specific isomer) or more saturated signals for a given class of compounds.

A 'U' flag is used to indicate that a specific isomer cannot be resolved from a large, co-eluting interferent GC peak. The specific isomer is reported as not detected as a valid concentration cannot be determined. The calculated detection limit, therefore, should be considered an underestimated value.

A 'V' flag is used to indicate that, although the percent recovery of a labeled standard may be below a specific QC limit, the signal-to-noise ratio of the peak is greater than ten-to-one. The standard is considered reliably quantifiable. All quantitations derived from the standard are considered valid as well.

The value reported for 'EMPCs' represents the estimated maximum possible concentration reported for GC/MS peaks eluting within the retention time windows established by the daily GC performance analysis, and which are characterized by a signal to noise ratio in excess of 2.5 to 1, but which do not meet the ion abundance ratio criteria. The 'EMPC' is calculated by using the same expression used for reporting the identified analyte concentrations. An EMPC can be reported for a non-detected specific isomers (e.g. 2,3,7,8-TCDD) but can also be reported for 'totals' (e.g. Total TCDD) in which case the 'total' EMPC represents the sum of all the positively identified PCDD/PCDF peaks and of the peaks that do not meet all the identification criteria.

By our interpretation, the analytical data in this project are valid based on the guidelines of EPA Method 8280. Any specific QC concerns or problems have been discussed in the QC Remarks section of this case narrative with emphasis on their affect on the data. Should ARDL, Inc. have any questions or comments regarding this data package, please feel free to contact our Project Scientist, Nancy Bragg, at 919/544-5729 ext. 267.

For Triangle Laboratories, Inc.,

Report Preparation

Quality Control

S. A. Parikh 09/22/96

Rose V. West 9-23-96

Saroj A. Parikh
Report Preparation Chemist

Rose West
Report Preparation Chemist

The total number of pages in the data package is : 364 .

Appendix IV

**GROUNDWATER SAMPLING FORM
AUGUST 28, 1996**



Harding Lawson Associates
Engineering and
Environmental Services

GROUND WATER SAMPLING FORM

Page 1 of 2

Job Name Cannon AFB
Job Number 33364, 2.4.1
Recorded by Jeffrey D. Minchak
(Signature)

Well No. MW-Q
Well Type: Monitor Extraction Other
Well Material: PVC St. Steel Other
Date 8/28/96 Time 1310
Sampled by gmr LS
(Initials)

Casing Diameter (D in inches):
 2-inch 4-inch 6-inch Other
Total Depth of Casing (TD in feet BTOC): 297.79
Water Level Depth (WL in feet BTOC): 275.81
Number of Well Volumes to be purged (# Vols)
 3 4 5 10 Other

Bailer - Type: _____
 Submersible Centrifugal Bladder; Pump No.: _____
 Other - Type: Pneumatic Bennett Pump
 Near Bottom Near Top Other midwater column
Depth in feet (BTOC): 285 Screen Interval in Feet (BTOC)
from 264 to 294

$$\frac{(297.79 - 275.81) \times 4 \times 5}{\text{TD (feet)} \quad \text{WL (feet)} \quad \text{D (inches)} \quad \text{\# Vols}} \times 0.0408 = 71.74 \text{ gallons}$$

Calculated Purge Volume

1150 Start 1310 Stop 80 Elapsed Initial 0.9 gpm Final 0.9 gpm 72 gallons

Turbid. NTU Redox MW

Minutes Since Pumping Began	pH	Cond. (µmhos/cm)	T <input checked="" type="checkbox"/> °C <input type="checkbox"/> °F	Other
5	9.55	781	5.5	18.7 .71 -73.8
10	9.49	675	6.0	18.3 .90 -33.1
15	9.49	662	5.9	18.3 .79 -37.6
20	9.49	671	5.6	18.2 .63 -39.6
25	9.49	682	5.5	18.1 1.16 -38.9

Turbid. NTU Redox MW

Minutes Since Pumping Began	pH	Cond. (µmhos/cm)	T <input checked="" type="checkbox"/> °C <input type="checkbox"/> °F	Other
30	9.50	694	5.8	18.3 1.21 -39.6
35	9.50	685	5.8	18.2 1.14 -39.7
40	9.50	687	5.5	18.4 1.20 -40.2
45	9.50	695	5.7	18.4 1.36 -39.9

Meter Nos. _____ 0.2 mg/L

Observations During Purging (Well Condition, Turbidity, Color, Odor): clean, colorless
Discharge Water Disposal: Sanitary Sewer Storm Sewer Other 300 gallon poly tank

Same As Above
 Bailer - Type: _____ Grab - Type: _____
 Submersible Centrifugal Bladder; Pump No.: _____ Other - Type: _____
Sample Series: _____

Sample No.	Volume/Cont.	Analysis Requested	Preservatives	Lab	Comments

Duplicate Samples		Blank Samples		Other Samples	
Original Sample No.	Duplicate Sample No.	Type	Sample No.	Type	Sample No.

DAILY QUALITY CONTROL REPORT

PROJECT: Cannon AFB Landfill No. 5
Monitoring Well

Date: 5/28/96
Weather: Cloudy
Temp: 87°F
Wind: still
Humidity: 56%

LOCATION: Upgradient of Landfill No. 5
at MW-Q

PERSONNEL

Name	Position	Company	Hours Worked
<u>J. Minchak</u>	<u>Geologist</u>	<u>HLA</u>	<u>12</u>
<u>L. Stockton</u>	<u>Technician</u>	<u>HLA</u>	<u>12</u>

FIELD INSTALLATIONS

ID No(s): MW-Q
Drilled: _____
from: _____
to: _____
Footage: _____
Casing Set: _____
Screen: _____
Riser: _____

EQUIPMENT

Description	Purpose/Use	Time Used
<u>Chevrolet</u>	<u>transportation</u>	<u>76 min</u>
<u>Suburban</u>		<u>12</u>

Hours Drilling: _____
Hours Installing: _____
Hours Decon: _____
Hours Development: _____
Hours Sampling: 3.0
Hours Shut Down: _____
of Samples: _____ Type: _____

Description of work performed: Collected groundwater samples from monitoring well MW-Q.

Health and Safety Levels: Level D.

Problems encountered: _____

Any changes from work plan: Unable to check for free product due to openings in dedicated pump well head being too small. There were no signs or odors on the water level meter upon measuring MW-Q. No odors or other abnormalities of the purge or sample. No water was observed.

Remarks: _____

Signature: Jeffrey D. Minchak

cloudy 80°F

August 28, 1996

J. Minchals } HCA suite
 L. Stockton } 1100
 after picking up compressed
 N₂ in Clovis.

1115 at Mw-Q setting up &
 calibrating meters.

TD. 297.79

✓ 275.81

21.98

1150 Begin purging Mw-Q.

1220 Bottle labeling complete.

Sample collection times:

1310 VOCs

1320 SUOCs

1322 PAHs

1325 PCB/Pest

1328 Herb.

1331 Dioxins

1334 Metals

1336 Cu⁻

1338 sulfide

1341 TOX/TOC

1342 completed sampling Mw-Q.

1345-1⁴⁵~~5~~20 packing equipment
 & samples. Stopped & talked
 to Sanford Hutzell at his
 office.

Returned to Clovis with N₂
 cylinders & back to Albuquerque.

sun